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THIRD ANNUAL REPORT

OF

THE STATE BOARD

OF

HEALTH, LUNACY, AND CHARITY

OF

MASSACHUSETTS,

TO WHICH IS ADDED

A STATISTICAL APPENDIX.

JANUARY, 1882.

BOSTON:

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117 FRANKLIN STREET.
1882.



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ERRATA AND OBSERVATIONS.

IN considering the statistics given in the following Report, it should be noticed that Tables I. and III. in the Appendix relate to the *municipal* year established by statute for the pauper returns of numbers and annual cost, and that this year ends on the 31st of March, 1881. The Tables VIII.—XIV. in the Appendix relate to the *State* official year from October to October. In the Tables IV., V., and VI., the State year and the municipal year appear together, the error thus arising being slight. In the Insanity Tables the year from October to October is implied; and the same is true concerning the Reformatories. In the Census of Pauperism, Table II., and in Tables XV. and XVI., certain facts are given at definite specified dates, which sufficiently appear from the tables themselves.

On p. xx, third line, for "Dr. Robert T. Davis," read "J. P. Davis."

On p. xxxiv, near the end of paragraph "1st," read "from the prison to the asylum," instead of "from one prison to another."

On p. xxxv, fifteenth line, for "saving" substitute "outlay," and insert "for" after the word "compensated."

Appendix, p. 4, New Bedford hospital expenses should be \$1,352 instead of \$14,352.

Page 128, seventeenth line, for "Black," read "Baltic."

Page 131, twelfth line, read "*of* all the sewage;" in last line but one, omit "of" before "sewage-farms."

In the Appendix, p. 29, the total population of the State should be given as 1,783,085.

In Table II., p. 30, the aggregate of State and town paupers fully supported July 1, 1880, should be 7,728 instead of 7,782.

Table XXIV., p. 76. The current expenses of the Salem School were \$6,255, and the net, \$3,917; the totals for all the schools, \$210,913 and \$181,480 respectively. The expenses of local reformatories for 1881, in Table XXV., on p. 77, should be \$60,621.

MEMBERS OF THE BOARD OF HEALTH, LUNACY, AND CHARITY.

[Names of *past* members in Italics ; of *present* members in small capitals.]

Date of Appointment.	NAME.	Residence.	Qualified.	Retired	Term expires.
June 7, 1879.	<i>Moses Kimball</i>	Boston	June 12, 1879.	Oct. 27, 1880.*	-
7, 1879.	<i>Nathan Allen, M.D.</i>	Lowell	19, 1879.	June 7, 1880.	-
7, 1879.	<i>Henry I. Bowditch, M.D.</i> . .	Boston	12, 1879.	Jan. 24, 1880.*	-
7, 1879.	CHARLES F. DONNELLY	Boston	16, 1879.	-	-
7, 1879.	EDWARD HITCHCOCK, M.D. . .	Amherst	13, 1879.	-	June 7, 1883.
7, 1879.	<i>Albert Wood, M.D.</i>	Worcester	10, 1879.	June 7, 1880.	7, 1886.
7, 1879.	ROBERT T. DAVIS, M.D. . . .	Fall River	14, 1879.	-	-
7, 1879.	JOHN C. HOADLEY	Lawrence	19, 1879.	-	June 7, 1882.
7, 1879.	EZRA PARMENTER, M.D. . . .	Cambridge	18, 1879.	-	7, 1886.
Jan. 27, 1880.	<i>David L. Webster</i>	Boston	Jan. 30, 1880.	April 11, 1881.*	7, 1882.
June 8, 1880.	<i>Charles F. Folsom, M.D.</i> . . .	Boston	June 9, 1880.	Jan. 14, 1881.*	-
8, 1880.	CLARA T. LEONARD	Springfield	12, 1880.	-	-
Nov. 5, 1880.	THOMAS TALBOT	Billerica	Nov. 12, 1880.	-	June 7, 1885.
Jan. 22, 1881.	ALFRED HOSMER, M.D.	Watertown	Jan. 28, 1881.	-	7, 1884.
April 18, 1881.	GEORGE P. CARTER	Cambridge	April 19, 1881.	-	7, 1885.

HEADS OF DEPARTMENTS.

Henry P. Walcott, Cambridge, <i>Health Officer</i>	S. C. Wrightington, Fall River, <i>Supt. of In-door Poor.</i>
H. B. Wheelwright, Newburyport, <i>Supt. of Out-door Poor.</i>	F. B. Sanborn, Concord, <i>Inspector of Charities.</i>

* Resigned.

STATE BOARD OF HEALTH, LUNACY, AND CHARITY.

OFFICE OF THE BOARD, STATE HOUSE,
BOSTON, Jan. 7, 1882.

To his Excellency the Governor and the Honorable Council.

THE undersigned, members of the State Board of Health, Lunacy, and Charity, herewith present, for the consideration of the General Court, their Third Annual Report.

THOMAS TALBOT.
R. T. DAVIS.
EZRA PARMENTER.
EDWARD HITCHCOCK.
CLARA T. LEONARD.
GEO. P. CARTER.
ALFRED HOSMER.
JOHN C. HOADLEY.

THIRD ANNUAL REPORT
OF THE
BOARD OF HEALTH, LUNACY, AND CHARITY
OF MASSACHUSETTS.

THE Board of Health, Lunacy, and Charity was established by law in 1879 under a statute (chap. 291 of the Acts of 1879), which, as revised by the Legislature of 1881, now makes a part of three chapters in the volume known as the Public Statutes; viz., the whole of chap. 79 and the beginning of chaps. 80 and 87. In order to exhibit in a concise form the present powers and duties of the Board, we give below the form of the statute as it will take effect on the 1st of February, 1882:—

[Chap. 79.]

SECTION 1. The state board of health, lunacy, and charity shall consist of nine persons. The present members thereof shall continue to hold their offices during the terms for which they were appointed. Two members of the board shall retire each year, in the order of their appointment, except every fifth year, when one shall retire. The appointments or re-appointments to fill vacancies occurring from expiration of terms of office shall be for five years; and all vacancies which may occur from that cause or otherwise shall be filled by the governor, with the advice and consent of the council.

SECT. 2. The board shall have general supervision over the state lunatic hospitals, the state almshouse, the state workhouse, the state primary school, the state reform school, and the state industrial school for girls; it may, when directed by the governor, assume and exercise the powers of the boards of trustees of said institutions, in any matter relating to the management thereof, excepting the trusts which are vested in the trustees of the state primary and reform schools; and may assign any of its powers and duties to agents appointed for the purpose, and may execute any of its functions by such agents, or by committees appointed from and by said board.

SECT. 3. The board, with the consent of the governor, shall appoint such officers as may be necessary, and fix their compensation,

STATE BOARD OF HEALTH, LUNACY, AND CHARITY.

within the limits of the annual appropriation. It shall be provided with rooms at the state house, and shall hold meetings each month on a day fixed by itself, and at such other times as may be needful. It shall make its own by-laws, and shall make a report of its doings to the governor and council on or before the thirty-first day of December in each year, such report being made up to the thirtieth day of September inclusive. It shall embody in its report a properly classified and tabulated statement of the receipts and expenses of the board, and of each of the several institutions named above for the said year, and a corresponding classified and tabulated statement of their estimates for the year ensuing, with its opinion as to the necessity or expediency of appropriations in accordance with said estimates; but this provision shall not apply to estimates for the ordinary expenses of lunatic hospitals. The report shall also present a concise review of the work of the several institutions for the year preceding, with such suggestions and recommendations as to them, and the charitable, reformatory, and sanitary interests of the state, as may be deemed expedient. The members of the board, and of the boards of trustees of the state institutions above named, shall receive no compensation for their services, but their travelling and other necessary expenses shall be allowed and paid; and no person employed by the board shall be a member thereof.

SECT. 4. The board shall also prepare, from the returns made by overseers of the poor, tables of paupers supported by towns, under section thirty-five of chapter eighty-four, and print in its annual report the most important information thus obtained.

SECT. 5. The board shall at least once in every year visit all places where state paupers are supported, and ascertain from actual examination and inquiry whether the laws in respect to such paupers are properly observed, particularly in relation to such as are able to labor; and shall give such directions as will insure correctness in the returns required in relation to paupers; and may use such means as may be necessary to collect all desired information in relation to their support. It shall visit the state almshouse, the state primary school, and the state reform school, as often as once in each month, for the purpose of inspecting said institutions, and for this purpose it shall, by some woman or women deputed by it, have access at all hours of the day or night to the portions of said institutions occupied by the women or children there maintained at the public expense; and the officers of said institutions shall furnish all information concerning the condition and treatment of their inmates which the board shall require. It shall also visit and inspect every private asylum or receptacle for the insane at least once in every six months.

SECT. 6. It shall prescribe to the superintendent of the state almshouse the forms for statistical returns to be made by him in his annual report in relation to the sex, age, and nativities of the inmates, and the places from which they were sent. It shall also prescribe the form of certificates required of mayors of cities, or overseers of the poor of towns,

THE ORGANIC ACT.

when a pauper is sent therefrom to the state almshouse; which certificate shall contain such inquiries in relation to the age, parentage, birthplace, and former residence of, and other facts relating to, the pauper, as the board may deem necessary, to which mayors and overseers of the poor shall render true answers, as far as they are able, before the pauper is received into the almshouse. The several cities and towns shall be furnished by the board with blank forms for said certificate.

SECT. 7. The trustees of the several institutions named in section two shall annually on the thirtieth day of September cause to be made and sent to the board an accurate inventory of the stock and supplies on hand, and the value and amount thereof, at each institution, under the following heads:—

Live stock on the farm; produce of the farm on hand; carriages and agricultural implements; machinery and mechanical fixtures; beds and bedding in the inmates' department; other furniture in the inmates' department; personal property of the state in the superintendent's department; ready-made clothing; dry goods; provisions and groceries; drugs and medicines; fuel; library.

SECT. 8. The board shall have the same powers in relation to state paupers who are inmates of either of the lunatic hospitals in this state, and their property, as are by law vested in towns and overseers of the poor in reference to paupers supported or relieved by towns.

SECT. 9. It may transfer pauper inmates from one state charitable institution or lunatic hospital to another; or may send them to any state or place where they belong, when the public interest or the necessities of the inmates require such transfer.

SECT. 10. On application of the trustees of the state primary and reform schools, the board may transfer any inmate of the state reform school or of the state industrial school, whom said trustees deem incorrigible or an unfit subject for said institutions, with the mittimus, to the state workhouse, there to be held on such mittimus till the term of sentence expires; but the board may return such person, with the mittimus, to the school from which such transfer was made, when in its judgment the object of such transfer has been accomplished.

SECT. 11. The board may from time to time transfer from the state almshouse to the state primary school all children likely to continue for a period of six months under the care of the state, and in suitable condition of body and mind to receive instruction; and especially orphans, or children who have been abandoned by their parents, or whose parents have been convicted of crime, or come within any of the descriptions of persons contained in section twenty-nine of chapter two hundred and seven. It may also make such other transfers of children as it may deem necessary from the state almshouse, and shall have the power of admission and discharge at the state primary school, together with the other powers vested in the board in relation to state paupers in almshouses and hospitals.

STATE BOARD OF HEALTH, LUNACY, AND CHARITY.

SECT. 12. The board may from time to time select for support at the state workhouse or state primary school any state paupers whose labor, in domestic or other service at those institutions, may contribute towards the cost of their support, or whose maintenance at the same may for special reasons be deemed expedient; and in case of an emergency may transfer any inmates of the state almshouse to either of said institutions, there to be supported while the emergency continues; but the board shall not so transfer an inmate of the state almshouse to the state workhouse as a punishment for crime.

SECT. 13. The board may transfer and commit to either of the state lunatic hospitals, or to the asylum for the chronic insane at Worcester, any inmate of the state almshouse or state workhouse, whose condition requires such transfer; but no such transfer shall be made without the certificate of two physicians, one of whom has no connection with any hospital or asylum for the insane, to the insanity of such inmate. Upon application of the director, manager, or trustees of a private asylum for the insane, the board shall have the power to transfer to another private asylum or to a state lunatic hospital inmates of such asylum; but no such transfer shall be made without the consent of the legal guardian of such inmate.

SECT. 14. If a state pauper who has received a permit from the overseers of the poor of a city or town to become an inmate of the state almshouse expresses a preference to be sent to any state or place where he has a legal settlement, or friends willing to support him, the board may remove said pauper, instead of committing him, if in its judgment the interest of the commonwealth and of the pauper will be promoted thereby; but no person shall be so removed, unless, in the judgment of said overseers and of the board, he will become a charge to the state for at least one year; and the board shall return, in its annual report, the names of all persons so removed, the places whence removed, and the cost of each removal.

SECT. 15. The names of persons so removed shall be entered upon the register of the almshouse or hospital, together with the usual details of their history, and shall be recorded by the several superintendents, as discharged to the board, for the purpose of removal from the state.

SECT. 16. Every private society or institution for charitable purposes, except institutions for the instruction of the deaf, dumb, and blind, when aided by a grant of money from the state treasury, shall annually prepare and send to the board a written or printed report of all its proceedings, income, and expenditures, properly classified, for the year ending on the thirtieth day of September, stating the sum appropriated by the commonwealth, the sum expended under said appropriation, the whole number and the average number of beneficiaries, the number and salaries of officers and persons employed, and such other information as the board may require.

SECT. 17. Said report, if in writing, shall be sent in by the fifteenth

COMMITTEES OF THE BOARD.

day of October, and, if in print, by the first day of November in each year.

[Chap. 80.]

SECTION 1. The state board of health, lunacy, and charity shall take cognizance of the interests of health and life among the citizens of the commonwealth. It shall make sanitary investigations and inquiries in respect to the causes of disease, and especially of epidemics and the sources of mortality and the effects of localities, employments, conditions, and circumstances, on the public health; and shall gather such information in respect to those matters as it may deem proper, for diffusion among the people. It shall advise the government in regard to the location of any public institutions.

SECT. 2. If small-pox or any other contagious or infectious disease dangerous to the public health exists or is likely to exist in any place within the state, the state board shall investigate the same, and the means of preventing the spread thereof; and shall consult thereon with the local authorities, and shall have co-ordinate powers as a board of health, in every place, with the board of health or health officer thereof, or with the mayor and alderman or the selectmen, if no such board or officer exists in such place.

[Chap. 87.]

SECTION 1. The state board of health, lunacy, and charity shall act as commissioners of lunacy, with power to investigate the question of the insanity and condition of any person committed to any lunatic hospital or asylum, public or private, or restrained of his liberty by reason of alleged insanity, at any place within this commonwealth; and shall discharge any person so committed or restrained, if in its opinion such person is not insane, or can be cared for after such discharge without danger to others, and with benefit to himself.

By the authority of the original statute (given in sect. 2 of chap. 79 of the Public Statutes) the Board has performed its functions by the full Board, by its committees, and by its agents. The committees of the Board are as follows:—

Health.—Dr. HOSMER, Mr. TALBOT, Dr. DAVIS, Mr. HOADLEY, and Mr. CARTER.

Lunacy.—Dr. HITCHCOCK, Dr. HOSMER, Dr. PARMENTER, and Mrs. LEONARD.

Charities.—Dr. PARMENTER, Mr. DONNELLY, Mr. HOADLEY, Mr. CARTER, and Mrs. LEONARD.

The agents of the Board are the officers of its four departments, acting under the direction of these committees. In the division of the many duties of the Board, these officers were appointed in its several departments in order to classify

BY-LAWS — HEALTH, LUNACY, AND CHARITY.

the work, and have it done more efficiently. Its Health Officer is Dr. H. P. Walcott; its Inspector of Charities, Mr. F. B. Sanborn; Mr. S. C. Wrightington is Superintendent of In-door Poor, and Dr. H. B. Wheelwright is Superintendent of Out-door Poor. The duties of these four officers will appear from the by-laws of the Board, as follows:—

BY-LAWS OF THE STATE BOARD OF HEALTH, LUNACY, AND CHARITY.

(*Adopted June, 1879; Revised June, 1880.*)

1. The Board shall, on the nineteenth day of June, 1880, and annually thereafter on the first Saturday in July, beginning with the year 1881, elect by ballot a Chairman and Secretary, who shall each hold office until his successor shall have been chosen. In the absence or disability of the Chairman or Secretary, a Chairman or Secretary *pro tem.* may be chosen, as the Board may determine.

2. Regular meetings of the Board shall be held on the first Saturday of each month at such hour as the Board may designate, and, unless otherwise ordered, shall be holden at the office of the Board at the State House. Special meetings may be called when the Board or the Chairman may direct. Four members shall constitute a quorum for business.

3. There shall be appointed the following standing committees, to whom special duties shall be assigned: viz., a Committee on Health, of five members; a Committee on Lunacy, of four members; a Committee on Charities, of five members; and an Executive Committee, to consist of the chairmen of the standing committees. Except in such matters as shall require the direction or sanction of the whole Board, or unless the Board shall otherwise expressly vote, each Committee shall direct the business of its own department. The Executive Committee shall perform the functions of the Board in the intervals between its meetings, when immediate action is necessary; and action so taken shall be reported to the next meeting, and, if no objection is made, shall be recorded as the will of the Board.

4. The officers of the Board shall be a Health Officer, an Inspector of Charities, a Superintendent of the Out-door Poor, and a Superintendent of the In-door Poor, all of whom shall hold office during the pleasure of the Board. They shall each receive an annual salary of twenty-five hundred dollars, together with a proper

BY-LAWS — OFFICERS AND THEIR DUTIES.

allowance for travelling and incidental expenses. They shall annually nominate to the Board suitable persons for clerical and other work, for whom, if approved, the Board shall assign a proper compensation. With the approval of the Division Committee, they may appoint persons temporarily when necessary.

5. The Secretary shall be present at the meetings of the Board, and keep a record of the doings at the same. The Health Officer shall discharge the duties of the Department of Health and of the Sanitary Supervision of the Institutions, and perform such other duties as the Board may assign him. He shall monthly report his doings to the Board, and annually in the month of September shall furnish a *resumé* of his work for the year.

6. The Superintendent of the Out-door Poor shall execute all the provisions of the laws relating to the sick State poor and those ill with contagious diseases, to the poor receiving temporary relief from the State, to foundlings and destitute infants, and to persons of Indian descent; and shall perform such other duties as the Board may from time to time assign him. He shall be under the immediate direction of the Committee on Charities, and report his doings to the Board monthly, and annually in the month of September shall furnish a *résumé* of his work for the year.

7. The Superintendent of the In-door Poor shall execute all the provisions of the laws relating to State pauper inmates of the State lunatic hospitals, almshouses, workhouse, and reformatories; the laws relating to alien passengers, and to proceedings in bastardy. He shall be charged with the visitation of the children who may be the wards of the State; with the collection of all money due to the State for the support of inmates in the several State establishments; with the auditing of the bills of the several lunatic hospitals against the Commonwealth, for the support of non-settled lunatic paupers; and shall perform such other service as the Board may from time to time require of him. He shall be under the immediate direction of the Committee on Charities, and monthly report his doings to the Board, and annually in the month of September shall furnish a *résumé* of his work for the year. He shall give a bond to the Treasurer of the Commonwealth in the sum of ten thousand dollars, with sufficient sureties for the faithful performance of his duties.

8. The Inspector of Charities shall occupy the office at the State House. He shall have the charge of such statistical work, not otherwise assigned, as the Board shall direct, and shall, under the direction of the Committee on Lunacy, see that the statutes

PROCEEDINGS OF THE BOARD.

regulating the commitment and detention of lunatics are complied with. He shall exercise constant watchfulness over all the institutions which the Board is required to supervise. He shall monthly report to the Board his doings, and annually in the month of September shall furnish a *résumé* of his work for the year, and shall perform such other duties as the Board may from time to time require.

9. These By-Laws may be amended at any meeting of the Board during the present year by the vote of a majority of the full Board, and after that time by a vote of two-thirds of the same at any meeting, after previous notice of the change that is desired in the same by any member.

PROCEEDINGS OF THE BOARD DURING THE YEAR 1881.

Since the changes in the membership of the Board, noticed in the Second Annual Report, and closing with the resignation of Dr. C. F. Folsom, Jan. 14, 1881, only one change has occurred; Mr. David L. Webster having resigned in the month of April, and Mr. George P. Carter, of Cambridge, having been appointed in his place and qualified on the 19th of April. The committees of the Board were re-arranged soon after Mr. Carter's appointment, and since then have remained as at present constituted. Much of the detail work of the Board has been performed by these committees, which meet as often as is found necessary, and consider fully in their several divisions the business brought before the Board or referred to them by the By-Laws or the special votes of the Board. There have been passed from time to time during the year many votes concerning the regular business of the Board, admitting, discharging, transferring, indenturing, etc., inmates of the institutions and wards of the State, according to law, appointing hearings, and deciding questions arising out of such hearings, etc. The more important votes of the Board have been as follows:—

Proceedings of the Board.

(Feb. 5, 1881.) Voted, That the Health Officer prepare and transmit a circular, under the direction of the Committee on Health, warning city and town authorities in this State of the

PROCEEDINGS OF THE BOARD.

prevalence of small-pox in other States, and the danger of its extending to Massachusetts.

(Feb. 7, 1881.) A copy of special estimates for \$8,934 to be presented to the Legislature by the Board of Trustees of the State Almshouse was presented with a communication from the clerk of that Board, dated Jan. 3, 1881, concerning the estimates in question, which was read; and on motion it was

Voted, That the Board approves of the proposed estimates of the Board of Trustees of the State Almshouse for new water-closets for men, for alterations in water-closets in the main building, and for the erection and completion of a *silo*; and that the Board disapproves a proposed additional hospital building at the State Almshouse, believing there is no immediate demand for it, and doubting the expediency of locating the hospital where proposed.

(March 5, 1881.) That in the judgment of this Board it is not advisable to make any substantial change in the buildings or location of the State Reform School during the present year.

(April 2, 1881.) Whereas the Health Officer reported that the lunatic hospital at Northampton is not sufficiently protected against the dangers of fire, for the reasons that there are not proper partitions in the attics, and that the ventilating flues have no direct communication with the external air:

Voted, That the Board recommends that the existing defects be removed, and still further recommends that the soil-pipes be carried through the roof.

(March 5, 1881.) That the Inspector of Charities and Superintendent of Out-door Poor be instructed to represent to the Finance Committee of the Legislature the necessity for an appropriation to meet the expenses of maintaining the increased number of foundlings coming under the care of the Board.

(April 9, 1881.) *Voted*, That the communication from Dr. Walcott, enclosing a report on the sanitary condition of the officers' quarters at the State Prison, from Civil Engineer Philbrick, be received and placed on file, and that the Health Officer of the Board be instructed to communicate to the Prison Commissioners a report embodying the contents of Mr. Philbrick's communication to the Board.

(May 7, 1881.) Mrs. Clara T. Leonard, discharging by appointment of this Board the duties of the Advisory Board of Women in relation to the State institutions at Tewksbury, Mon-

PROCEEDINGS OF THE BOARD.

son, and Westborough, made a special report in writing on those institutions visited by her during the month of April.

(*May 7, 1881.*) *Voted*, That the Superintendent of In-door Poor be instructed to investigate the circumstances attending the sickness, treatment, and death of John Gethings at the State Reform School, and the conduct of the officers of the institution in the matter.

(*May 7, 1881.*) Mrs. Leonard moved that this Board authorize the Superintendent of In-door Poor to disburse to the auxiliary visitors of the Board, from the special appropriation for the visitors, such sums as may be necessary to pay the travelling expenses of the visitors to their customary meetings; and the motion was adopted.

(*June 4, 1881.*) *Voted*, That chap. 33 of the legislative Resolves of 1881, concerning the separation of the criminal insane, be referred to the Committee on Lunacy with instructions to consider and report.

(*June 4, 1881.*) *Resolved*, That the members of this Board attend the coming National Conference of Charities, to be held in this city in the month of July next, and that the Inspector of Charities, the Superintendents of the Departments of the Board, and the Health Officer are appointed as delegates from the Board to the Conference.

(*June 4, 1881.*) *Voted*, That the Health Officer of this Board is instructed to issue a circular to the selectmen or boards of health of each town in the Commonwealth, to report by telegraph to him the first appearance of any case of small-pox in the town.

(*June 22, 1881.*) *Voted*, That further hearing of the question of cleansing Lower Mystic Pond, as provided in chap. 303 of the Statutes of 1881, and the hearing of the question of erecting a dam at the outlet of the pond, as provided in said chapter, be postponed for two months from this date, unless otherwise ordered hereafter by this Board or the Chairman thereof.

(*June 22, 1881.*) *Voted*, 1. That the plans and specifications presented by Miss Putnam in behalf of the committee representing the Trustees of the State Primary and Reform Schools, setting forth in detail the proposed reservoir and pipes therefrom to be laid at the State Primary School at Monson, are approved, provided the appropriation for the work be expended under the direction and subject to the approval of Messrs. Hoadley and Carter in behalf of this Board.

PROCEEDINGS OF THE BOARD.

2. That the proposed repairs of the old hospital at the State Primary School at Monson, as set forth in the written statement presented to the Board this day by Miss Putnam in behalf of a committee representing the Trustees of the State Primary and Reform Schools, are approved, provided the appropriation for the work be expended under the direction and subject to the approval of Messrs. Hoadley and Carter in behalf of this Board.

(*July 1, 1881.*) *Voted*, That the city of Worcester and town of Millbury be informed by the Secretary, that the State Board of Health, Lunacy, and Charity desires each municipality interested to furnish in writing, on or before the fifteenth day of September next, such evidence of experts and others, as each municipality deems proper, concerning the best disposition of the sewage of Worcester, especially with a view to prevent the pollution of the Blackstone River and its tributaries.

(*July 2, 1881.*) *Voted*, That the Committee on Health are authorized to employ such assistants and incur such engineering or other expenses as, after consultation with the Governor and Council, may, in the judgment of the latter, be approvable by them on the question of the sewage of Worcester.

(*July 2, 1881.*) *Voted*, That in reply to a communication dated June 14, 1881, from N. Wetherbee, Chairman of the Board of Health of Marlborough, that Board be informed that it appears to have jurisdiction of the two slaughter-houses in question and the matter complained of concerning them; and that the local board be requested to give such information as is in its possession regarding the length of time the houses have been established, their mode of construction, their means of receiving and holding the offal of animals, the disposition of the offal, the extent of the business in each house, and the reason of the non-interference of the local board of health in the matter; or, if any action has been taken by the local board, to inform this Board the result of it.

(*July 2, 1881.*) *Voted*, That the Inspector of Charities is especially instructed to investigate in behalf of the Board, and specially report to it, all the facts in all cases of admission to the lunatic hospitals in this State, made under the provisions of chap. 272 of the Statutes of 1881.

(*July 2, 1881.*) *Voted*, That the Committee on Charities are instructed to investigate and report on the management and government of the State Reform School at Westborough, and to make such recommendations concerning the same as may appear advisable.

PROCEEDINGS OF THE BOARD.

(*Aug. 6, 1881.*) The Chairman of the Board reported, in behalf of the Committee on Health, that the committee met and voted that Dr. Robert T. Davis, the Health Officer of the Board, and Dr. Charles F. Folsom, be a sub-committee to examine the question of the sewage of Worcester; that Dr. Hosmer, in behalf of the Committee on Health for the Board, had appeared before the Governor in relation to the expenditures necessary for examining into the Worcester sewage question; that the Governor and Executive Council had declared their approval of the Board's incurring an expenditure not to exceed eighteen hundred dollars for the work; and that the Health Officer, Dr. Folsom, and Mr. Crole, the latter representing Engineer Davis of New York, and employed by the committee, visited Worcester, and commenced the work of the sub-committee.

(*Aug. 6, 1881.*) The Superintendent of Out-door Poor appeared before the Board, and represented that the abandonment of infants, legitimate and illegitimate, by their mothers, is increasing; that perhaps some legislative action might diminish, if not repress, the evil; and it was

Voted, That the Superintendent of Out-door Poor is instructed to consider and report to the Board such measures to prevent the abandonment of infants, more especially in reference to those becoming a public charge, as in his judgment may effect the object.

(*Sept. 3, 1881.*) *Voted*, That the Inspector of Charities be instructed to report to the Board such facts as have come to his knowledge regarding the town almshouses.

(*Oct. 18, 1881.*) *Voted*, that the Committee on Charity appoint one of its members, with the Superintendent of In-door Poor, to visit the New Jersey State Reform School, and such other reformatory institutions for children in the neighborhood of New York City, as they may deem proper, to examine into their system of government and management, and report to this Board.

(*Oct. 18, 1881.*) *Voted*, That the Chairman of the Committee on Lunacy, with the Inspector of Charities, be instructed to visit the Asylum for the Criminal Insane at Auburn, N.Y., examine the system of treatment and mode of government at that institution, and report to this Board the result of their examination.

(*Nov. 5, 1881.*) *Voted*, That the Committee on Health be instructed to present to the Board of Harbor Commissioners a request to review their hydrographic survey of that part of Lower Mystic Pond, at and near the outlet of the sewer built by the city

PROCEEDINGS OF THE BOARD.

of Boston, from Woburn, for the purpose of ascertaining to what extent the contents of the sewer were deposited in the pond at and near the outlet in question.

(*Nov. 5, 1881.*) An application was received from the Trustees of the State Reform School, requesting the transfer of certain boys from the State Reform to the State Primary School.

Voted, That the application of the Trustees of the State Reform and Primary Schools, for the transfer of Charles F. Thompson and Alton Francis from the State Reform to the State Primary School, be granted.

(*Nov. 19, 1881.*) *Voted*, That until further notice Alfred A. Dow and Stephen Dow be required to hereafter convey all polluting substances and drainage whatsoever, of their premises used for tanning purposes in Woburn, into one or more catch-basins of sufficient capacity to contain the same, for the purpose of cleansing said substances and drainage, and preventing the same from being cast or allowed to flow into any part of the water-supply of the city of Boston; and that the same persons be required to construct a tight drain of pipe, corresponding in its general direction with the present covered drain on the premises, and into which none of the drainage of their tannery shall be allowed to enter; and, furthermore, that said parties be required to remove the present covered drain on the premises.

(*Nov. 19, 1881.*) *Voted*, That the Secretary of the Board is instructed to issue, and cause to be served, the following form of order of notice on Charles J. Bishop, Charles J. Bishop, jun., George E. Dustin, and N. F. T. Hayden; the order to be served by giving a copy of the same to each of said persons in hand, or by leaving a copy of the same for each of said persons at his usual place of business, or at his last and usual place of abode:—

COMMONWEALTH OF MASSACHUSETTS.

STATE BOARD OF HEALTH, LUNACY, AND CHARITY.

TO CHARLES J. BISHOP.

You are hereby notified that it has been represented to the State Board of Health, Lunacy, and Charity of the Commonwealth of Massachusetts, that the premises occupied and used by you at Woburn, in the county of Middlesex, for carrying on the business of a tannery, are situated so that "sewage, drainage, refuse, or polluting matter" is discharged, contrary to law, from said premises into Fowle's Brook, thence into Horn Pond, and thence into Mystic Pond, thereby polluting the waters of both brook and ponds, and being of such quality and amount as either by itself or in con-

RECEIPTS AND EXPENSES OF THE BOARD.

nection with other matter to corrupt or impair the quality of the water in said brook and ponds for domestic use, or render it deleterious to health; and you are also hereby notified that application has been made to the said Board of Health, Lunacy, and Charity, by the city of Boston, to exercise, in respect to your said premises and business, the powers conferred upon the said Board by the fourth section of the one hundred and eighty-third chapter of the Acts of the General Court of the said Commonwealth of the year eighteen hundred and seventy-eight; and that Saturday, the third day of December, 1881, at eleven o'clock in the forenoon, and room 10, west wing of the State House in Boston, have been assigned by the said Board of Health, Lunacy, and Charity as a time and place for a hearing on the said application; and you are required then and there to appear, and to show cause why you should not be ordered by the said Board of Health, Lunacy, and Charity to desist and cease from discharging, or causing to be discharged, said sewage, drainage, refuse, or polluting matter into said brook and ponds.

(*Dec. 1, 1881.*) *Voted*, That Dr. H. P. Walcott, Health Officer of the Board, be granted two weeks' leave of absence, from Nov. 25, 1881, for the purpose of attending the meetings of the National Health Association at Savannah, Ga.

(*Dec. 3, 1881.*) In the absence of the Secretary, Ezra Parmenter, M.D., was duly elected and qualified as Secretary *pro tem*.

(*Dec. 10, 1881.*) *Voted*, 1. That the Superintendent of Indoor Poor prepare a report of a plan to present to the Committee on Charity, by which the Board of Health, Lunacy, and Charity may lawfully retain custody of children who become a State charge, in consequence of the crimes and misdemeanors of their parents, until the welfare of such children will be promoted by their discharge; also, that Overseers of the Poor of towns and cities may have the same powers in regard to similar children supported by towns.

2. That the Superintendent of Out-door Poor be requested to report a method by which children between two and eight years of age, having no known settlement in the Commonwealth, may be boarded in private families in the manner provided in chap. 103 of the Acts of 1879, in case of children supported by towns, when such children may be benefited by so placing them, rather than by committal to the State Primary School.

RECEIPTS AND EXPENSES OF THE BOARD.

By sect. 3 of the Act above cited, this Board is directed to include in its Annual Report tabulated statements of the

 RECEIPTS AND EXPENSES OF THE BOARD.

receipts and expenses of the Board itself, and of the State institutions. The Board has no receipts of its own, but collects and transmits to the State Treasury such sums as are due from cities and towns and from individuals for the support of persons other than State paupers in these institutions. These receipts, being the largest ever collected, were as follows :—

During the year ending Sept. 30, 1881, from sundry persons for board in the State Almshouse and Lunatic Hospitals there was received	\$3,058 08
From cities and towns, for board of city and town charges in the various State institutions	65,766 31
Total	<u>\$68,824 39</u>

In detail, the receipts were as follows :—

Boston	\$35,618 83	Brookline	\$203 86
Chelsea	429 04	Blackstone	132 28
Cambridge	1,225 91	Buckland	50 00
Fall River	2,439 41	Brockton	193 00
Fitchburg	384 92	Billerica	4 00
Gloucester	1,180 14	Braintree	43 43
Haverhill	158 25	Beverly	93 43
Holyoke	336 25	Blandford	13 00
Lowell	1,521 42	Brimfield	60 00
Lynn	681 62	Barnstable	17 69
Lawrence	1,811 93	Bernardston	39 00
New Bedford	1,924 71	Belmont	29 25
Newton	151 00	Bridgewater	948 57
Newburyport	295 57	Boxborough	57 11
Salem	680 69	Chatham	151 00
Springfield	801 28	Chicopee	108 00
Somerville	531 18	Chelmsford	52 93
Taunton	395 58	Cohasset	16 00
Worcester	1,144 17	Conway	91 25
Amesbury	96 00	Colrain	63 51
Ashburnham	20 00	Canton	128 00
Ashland	51 11	Carver	60 36
Amherst	147 95	Chester	90 54
Abington	39 00	Dedham	35 57
Andover	192 65	Dalton	5 75
Agawam	59 57	Dennis	52 00
Arlington	23 21	Danvers	434 71
Acton	191 82	Dartmouth	166 00

RECEIPTS AND EXPENSES OF THE BOARD.

Edgartown . . .	\$4 00	Provincetown . . .	\$86 29
Everett . . .	152 28	Pittsfield . . .	209 00
Essex . . .	68 25	Princeton . . .	91 75
Easton . . .	210 25	Peabody . . .	51 07
Enfield . . .	14 00	Pepperell . . .	86 36
Franklin . . .	21 00	Petersham . . .	91 43
Freetown . . .	216 32	Quincy . . .	179 25
Grafton . . .	75 64	Randolph . . .	695 83
Groton . . .	72 25	Rochester . . .	6 00
Georgetown . . .	68 24	Rockport . . .	20 00
Hopkinton . . .	250 71	Russell . . .	54 32
Harwich . . .	270 53	Raynham . . .	93 00
Hingham . . .	87 18	South Abington . . .	103 00
Hatfield . . .	181 00	Sheffield . . .	52 00
Holbrook . . .	74 00	Somerset . . .	51 00
Hyde Park . . .	18 11	Sutton . . .	120 43
Holliston . . .	14 00	Swampscott . . .	96 00
Kingston . . .	46 96	Sandwich . . .	58 85
Leicester . . .	39 17	Scituate . . .	134 75
Lee . . .	126 75	Stockbridge . . .	35 00
Lexington . . .	134 64	Southbridge . . .	18 26
Lunenburg . . .	27 39	Swanzy . . .	42 71
Lanesborough . . .	59 00	Salisbury . . .	55 71
Milford . . .	553 50	Sudbury . . .	166 68
Mansfield . . .	31 71	Templeton . . .	115 96
Marlborough . . .	281 89	Uxbridge . . .	90 71
Medford . . .	63 04	Woburn . . .	150 79
Millbury . . .	84 75	Westborough . . .	84 14
Middleborough . . .	311 50	Winchester . . .	6 00
Montague . . .	107 50	Watertown . . .	177 82
Melrose . . .	264 00	Wareham . . .	190 50
Malden . . .	208 25	Waltham . . .	242 39
Marblehead . . .	93 72	West Newbury . . .	20 43
Maynard . . .	169 46	Weston . . .	54 75
Merrimac . . .	21 82	Warren . . .	83 25
Monson . . .	262 50	West Boylston . . .	52 00
Middleton . . .	30 64	West Bridgewater . . .	29 71
North Adams . . .	76 25	Weymouth . . .	67 07
Northbridge . . .	18 00	West Springfield . . .	52 00
New Marlborough . . .	39 00	Washington . . .	49 00
North Andover . . .	26 00	Webster . . .	99 21
Natick . . .	196 36	Westminster . . .	25 00
Northampton . . .	186 75	Westport . . .	111 00
North Brookfield . . .	101 32	Wrentham . . .	29 25
Oxford . . .	4 00	Wenham . . .	4 45
Otis . . .	19 75	Yarmouth . . .	104 82
Palmer . . .	70 54		

SPECIAL DUTIES ASSIGNED TO THE BOARD.

The above-named amounts, including both that paid by cities and towns and by individuals, was received for support in the following-named establishments:—

Danvers Lunatic Hospital	\$12,773 91
Taunton Lunatic Hospital	6,962 50
Worcester Lunatic Hospital	4,892 05
Northampton Lunatic Hospital	5,129 27
Asylum for Chronic Insane, Worcester	4,906 26
State Workhouse, Bridgewater	4,613 65
State Almshouse, Tewksbury	15,878 68
State Reform School, Westborough	7,941 36
State Industrial School, Lancaster	2,658 72
State Primary School, Monson	3,067 99
Total	\$68,824 39

The collection of this large amount in a single year was in consequence partly of the decision of the Supreme Court in the suit between Cambridge and Boston, mentioned in the Report of last year. The consequence of this decision was to remove from the State list of patients many persons who had been in the hospitals and asylums more than a year, and for whose support arrears of board were collected.

The expenses of the Board and its departments during the year ending Oct. 1, 1881, and for the calendar year 1881, will be given in connection with the estimates for the year 1882, and will also be found in detail at the end of the Appendix.

SPECIAL DUTIES ASSIGNED TO THE BOARD.

Besides the duties imposed upon the Board by the general statute above cited, the Legislature has required the performance of certain special duties during the past year. These relate chiefly to matters of health in connection with the important question of the water-supply and drainage of cities.

By a Resolve of 1881, chap. 33, the Board was charged with the preparation of a plan for separating the criminal insane from other insane persons in the public asylums. Reserving for the present the recommendations of the Board in regard to these important subjects, which have all been

SPECIAL DUTIES ASSIGNED TO THE BOARD.

fully considered since the 1st of June, we may here present those general considerations, with respect to the subject-matter of the last-named Resolve, which must precede and explain the recommendations the Board will make to the Legislature.

CLASSIFICATION OF THE INSANE.

SPECIAL REPORT UNDER THE RESOLVE,
CHAP. 33, OF 1881.

The Classification of the Insane. — The Criminal and Dangerous Insane.

The general condition of the public health and of the charities, both of the State and of the cities and towns, has not materially changed within the last year. But one great class of persons — namely, the insane, who, whether poor or rich, must depend upon the public for care and oversight — has been steadily increasing in Massachusetts for many years, and apparently must continue to increase. This is not due, according to the best authorities, to any extraordinary development of insanity as a disease, but it is rather an accumulation of persons suffering from insanity in its chronic stage. There has been no sudden increase in new cases of insanity, but a constant addition to the number of those who, having been attacked in years past, have not been removed from the list by recovery, death, or departure from the State. It is held by many that insanity is less curable than formerly; and it is no doubt true that many persons are now reckoned insane who, a generation ago, would not have been included in that class. Whatever may be the reasons for the present state of things, it has long existed, and has led to the building of large and costly insane hospitals, which, again, are now nearly full, and, from present appearances, will be completely filled, perhaps crowded, before the close of the year 1882. It therefore seems wise to consider in advance, whether some policy cannot be adopted to classify the insane, especially those reckoned incurable, so that suitable provision may be made for them as they accumulate without renewing that extravagance in hospital building which has become the subject of public complaint in this and other States.

The first and most important feature in such a classification would be that the criminal and dangerous insane men be removed from the present hospitals and asylums to a sepa-

CLASSIFICATION OF THE INSANE.

rate asylum, intermediate between a prison and a hospital, in which they can be held and treated as their condition requires, without coming in contact with patients whose insanity is not dangerous to life, nor complicated with crime, nor manifestly the result of a vicious life. The number of these criminal and dangerous insane is not very large, but grows greater from year to year; and more than a hundred men could now be removed from the existing hospitals and asylums to such a special asylum, if it were in existence. The necessity for an asylum of this kind was considered by the last Legislature, on the recommendation of his Excellency the Governor; and the following resolve was passed:—

[Chap. 33, Resolves of 1891.]

Resolved, That so much of the Governor's message as recommends that separate provision be made for the criminal insane be referred to the State Board of Health, Lunacy, and Charity, with instructions to consider the same, and report a plan by which it may be carried into effect to the next Legislature.

Acting under this Resolve, the Board referred its subject-matter to the Committee on Lunacy, whose chairman, Dr. Hitchcock, while visiting England during the past summer, made a special effort, at the request of the Board, to ascertain what has been done, and what experience has been gained, by the British Home Government in regard to the insane criminals of England, Ireland, and Scotland. Dr. Hitchcock had the pleasure of an interview with the Earl of Shaftesbury, Chairman of the English Commission of Lunacy, and with Dr. Arthur Mitchell, Chairman of the Lunacy Board of Scotland; and he spent a day with Dr. Orange, Superintendent of the Criminal Insane Asylum at Bracknell, known as the Broadmoor Asylum. From the notes of Dr. Hitchcock, written out since his return to America, the following extract is made:—

“I learned that England, Scotland, and Ireland have each an institution, at Bracknell, Perth, and Dundrum, respectively, in which are confined many of the criminal lunatics of the United Kingdom; by criminal lunatics being meant those persons who either were convicted of crime

THE ENGLISH CRIMINAL INSANE.

committed when in a state of insanity, or were awaiting trial because they have become insane before trial or sentence while in jail or prison. The last report of the Broadmoor Asylum (for England alone) gives 532 as the number of inmates, — 407 men and 125 women. This asylum, like most of the government institutions in England, is substantial, commodious, and very comfortable, though with the aspects and surroundings of a prison. There is an attendant or officer to about every five patients; and the creaking of iron-grated doors, and the clanking of massive keys, are suggestive. And yet a machine-shop, a carpenter's shop, the shoemakers' and tailors' benches, occupy many of these unfortunates regularly nearly all the time. Encouragement to good conduct is offered by granting a small allowance of money for continued good work and behavior. But it is a prison, and a very rigid one at best. And it is, and from its nature must be, a very expensive institution to maintain. A higher grade of attendants must be employed here than at the ordinary insane asylums. The vicious class in society is always a most expensive one to maintain, and protect society against; but, when insanity is coupled with vice, perhaps the burden is doubly increased.

“A caution was kindly offered to me by Earl Shaftesbury, that this receptacle for the criminal insane, which is proposed in Massachusetts, should not be made so attractive or comfortable that convicts will be glad to be transferred to it in preference to any of the other insane institutions in the State. For the murder of one of the visitors of an English asylum is fresh in British memory, which was committed by an insane man in a county asylum, with the confessed wish on his part that he might be transferred to the “farm,” as Bracknell is technically known to the convicts, rather than be obliged to stay where he then was all his natural life.

“From the visit I made to Broadmoor, and my interviews with the Lunacy Commissioners of England and Scotland, it seemed evident to me that the method adopted by them in caring for the criminal insane is, on the whole, satisfactory to the British Government and people; and, to a visitor from outside the British Isles, it is apparently a success. In caring for our own insane of this class, it behooves us to imbibe as much of their wisdom and experience as we may, and then to make our plans conform to the varying conditions of our climate, temperament, and material surroundings, under the peculiar influence of our form of government and the freedom of thought and action belonging to the American people.”

The only criminal asylum similar to those in Great Britain, which has been in operation for any considerable time in the United States, is that maintained by the State of New York in connection with the State Prison at Auburn. The Auburn Asylum was visited during the summer by the

THE AUBURN CRIMINAL ASYLUM.

Inspector of Charities, and again on the 9th of November, 1881, at the special request of the Board, by Dr. Hitchcock, Dr. Walter Channing (who had been for more than two years a medical officer of this asylum at a former period), and by the Inspector of Charities. From the notes made at these visits, and from the published reports of this asylum, the following statements of fact and opinion are drawn:—

The State Asylum for Insane Criminals was opened, in connection with the Auburn State Prison, on the 2d of February, 1859, and has had an average number of patients during the twenty-two years following of something less than 100, although of late years (since 1874) the number of patients has averaged more than 100, and, in 1880, rose to 142. At the last visit of the Inspector of Charities, it contained 135 patients, ten of whom were women, the average number having fallen a little during 1881. The whole number of patients admitted since Feb. 2, 1859, does not much exceed 600; and of these less than 40 have been women. Upon inquiring of Dr. Macdonald, the present Superintendent, why the State of New York, with a population of more than 5,000,000, should have so small a population in its only criminal asylum, he stated that the period of detention for his patients was too short, and that there were in the State of New York several hundred of the criminal insane, practically of the same class as those at present under his charge, who, in his opinion, ought to be in such an asylum, provided it were large enough to contain them. He even thought the number of such patients, if the laws were so modified as to allow their detention in his asylum, might in a few years reach 500. But, among these, he supposed that the proportion of women might be no greater than it had been among the actual patients of the asylum; that is, less than one in fifteen.

The connection of the Auburn Asylum with the State Prison was formerly much closer, so far as administration was concerned, than it has been for a few years past. In location it is very closely related to the prison, occupying one side of the great square in which the prison is enclosed, and having, therefore, one side of its buildings and grounds shut in by the prison buildings and yard. Two of the other sides

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open upon the public street; and one great difficulty in the management of the asylum has been the facility for escape which this nearness to the public street permitted. Dr. Macdonald regards it as important that such an asylum should stand in its own enclosure, and should have as little outward or inward connection with a prison as circumstances will permit.

Previous to the first appointment of Dr. Macdonald as Superintendent, in April, 1876, the management of the asylum seems to have been complicated with the management of the prison,—both being guided too much by political considerations. Dr. Macdonald's appointment was non-political; and under his administration much has been done to improve the treatment of the patients, and the character of the attendants who take charge of them. At the present time the patients in the Auburn Asylum, although to a large extent belonging to the worst class, both of criminals and of the insane, appear to be treated with as little harshness and with as much success in regard to recovery, rate of mortality, etc., as is found in the ordinary insane asylum, where chronic patients largely predominate.

“We found only one or two patients secluded, and one undergoing mechanical restraint,”—is the statement made by the gentlemen who visited the asylum on the 9th of November. A considerable number of the patients labor regularly outside of the wards, and a separate ward has lately been constructed for the residence of these daily workers. The average cost of each patient in the asylum, which has ranged during twenty-two years between \$150 a year and \$600, now stands at about \$200, or a little less than \$4 a week; yet the food, clothing, and general care of the patients, seem to be as good as in the ordinary asylums.

The three gentlemen who visited the Auburn Asylum in November say, —

“As the general discipline and surroundings of the patients there have improved, the amount of restraint has decreased. In former years, harsh treatment, amounting even to the severity of prison discipline, was practised, and restraint by handcuffs and other means rose to ten per cent. The average has steadily fallen year by year since Dr. Macdonald took

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charge in 1876, and one may almost predict that its entire discontinuance will soon be the rule. For sixteen months, we were informed, there had been no escapes, in spite of the remarkable propensity of insane criminals to make attempts. Vigilance is partly the explanation of this long period of immunity; but it is also, and perhaps chiefly, due to the feeling of confidence and good-will engendered in the patient by the spirit of kindness and trust pervading the asylum. Under the former prison plan of treatment, every evil impulse was kept alive, and such patients as were able exhausted the whole strength of their minds in planning escapes.

“ We observed a considerable number of patients out at work, most of them assisting the gardener. Two or three were laying a pavement, one was carpentering, one was assisting the baker, and several others were at work in the laundry, in the engine-house and kitchen. These men were steady and regular workers, as a rule, and perhaps even better workers than the average of insane men. In the sewing-room we found a discharged criminally insane woman employed as seamstress; and we were told that a criminally insane man had, after recovery, been employed as steward, and had done the work remarkably well. It may be said here, that the number of patients taken out to work is necessarily somewhat limited, the garden being so small. With a farm, a larger number of patients could be employed to do common work.

“ It might at first sight be supposed that the number of feigners would be large at the Auburn Asylum, since its comfort would be favorably commented on among the convicts, and lead some to simulate insanity for the purpose of becoming patients. Such is not now the case, since the asylum's reputation for pleasant surroundings is coupled with a reputation for the quick perception and prompt return of dissemblers to the prison. In this connection, it may be said that the prison authorities have, in times past, taken advantage of the nearness of the asylum to transfer feigners, who would not have been so transferred had the asylum been more remote. This fact appears to offset the apparent advantage which would be found in early transferring, from the prison to an asylum close by, those convicts really insane, whose insanity for some time may escape notice in a prison. We questioned Dr. Macdonald in regard to the value to the prison itself of having the Superintendent of the convict asylum act also as resident physician of the prison. He thought such an arrangement would be useful to the prison, but not to the asylum.”

The long connection of Dr. Channing with the medical supervision of the Auburn patients, and the careful study which he has given since 1877, when he left Auburn, to the general subject of the criminal insane, gives special value to what he has written to the Chairman of the Lunacy Com-

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mittee in regard to the classification of these patients, and to their separation while under treatment. He writes as follows, under date of Nov. 15, 1881 : —

“ Both my experience of over two years at the Auburn Asylum, and my subsequent acquaintance with this class of persons and general study of their treatment, have tended to confirm the opinions which I have from time to time expressed in public. These are, first, that insane criminals (this term applying both to the convicted and unconvicted classes) require treatment apart from all other classes of the insane; and, second, that their treatment can best be carried out in separate asylums unconnected with other institutions. Leaving, however, the general consideration of the subject, I wish in this letter to refer to a few points which are of interest in relation to the erection of a special building.

“ I have read the paper of Dr. David Nicolson, of the Broadmoor Criminal Lunatic Asylum, called ‘ A Chapter in the History of Criminal Lunacy in England.’ In this paper the sharpest distinction is made between the convicted and the unconvicted insane, both by Dr. Nicolson and Dr. Orange. From what they say, the rule might be established, it would seem, that, except in isolated cases, there was little more justice in treating the unconvicted with the convicted insane than in treating the ordinary insane with them. The opinion of these gentlemen is undoubtedly correct as applied to the English insane criminals. My own experience has been small in comparison with theirs; but what I have seen at Auburn has led me to believe that most of the patients, of both the convicted and unconvicted classes, resembled each other sufficiently to come under one general classification. I would say, however, that some of the most respectable of the unconvicted class in New York did not come to Auburn, the law allowing the courts to send them to ordinary hospitals for the insane.

“ I cannot see where a large enough number of the unconvicted, or ‘ criminally insane,’ as Mr. Wines of Illinois calls them, are to be found to justify the erection of a separate building for them in Massachusetts. If we draw a line, and place the ‘ criminally insane’ on one side and the insane convicts on the other, we shall not by any means be able to send one kind to one institution and one to the other, provided we classify according to form of disease, character of actions, degree of viciousness, etc. We shall have to place a large portion of the criminal insane on the other side, and, *vice versa*, some of the convicts can be sent to fill the places thus made vacant. It must be remembered that many convicts were insane when convicted, and, in reality, they are fit members of the criminally insane class. Having now made these transfers, we shall find a small number of depraved, almost incorrigible, convicts left over on the one hand, and a few refined, upright, and tractable ‘ criminally insane’ persons on the other. Provided my classification is correct, we shall then need three separate buildings; viz., one for the average middle

DR. CHANNING'S SUGGESTIONS.

class, one for the worst, and one for the best class. But the number will be so small that this cannot be thought of for a moment. Will it, therefore, not be best to erect one building, and place in it all of these classes, except perhaps a small number, who can be sent, as in New York, to the ordinary insane hospitals? As a matter of principle, I believe in the most complete separation; but it does not seem to me that the time will arrive for some years when we shall have enough to more than fill one institution.

“In relation to the building of an asylum for insane criminals on the prison-grounds at Concord, the same question of numbers would, at the outset, be important in coming to a conclusion. For a small number of *insane convicts* — which would never rise, say, above fifty — such a building, though theoretically not the best suited to their treatment, would still do very well. It may even be said that this plan would offer advantages to the State in the way of economy which would offset the diminished benefit of the medical treatment to the convict. For the general class of insane criminals I should entirely disapprove of a building on the prison-grounds, unless at a point outside the prison-walls so much removed that it would be, to all intents and purposes, a separate institution. My reasons for this complete separation are, —

“1st, Because the general atmosphere of the prison will, to a greater or less extent, pervade the prison asylum. Old keepers will be employed as attendants; sane convicts will be detailed to do various kinds of work; officials and keepers of the prison will bring their friends to visit the asylum; the public will endeavor to visit it; prison gossip and tradition will be carried from one prison to another, and will get to the patients' ears.

“2d, Because this proximity to the prison will necessitate a prison-like form of discipline more rigid than would otherwise be required. There must be high walls protected by guards; attendants will be obliged to watch patients closely, both to prevent the patients from escaping and from rendering assistance to sane convicts, who are invariably on the lookout for an opportunity. In every way, a tolerably close surveillance must be maintained.

“3rd, Because the business management of the prison asylum may be placed in the wrong hands; that is to say, the prison-warden, for purposes of economy, may be selected. Having no practical knowledge of the insane, he may not understand what food, clothing, attendance, or surroundings are needed for insane criminals. Should the warden be selected, he will probably come into collision with the medical superintendent, should the latter be a strong and independent man; and one or the other will be obliged to yield. Should the latter give way, prison treatment will be the result; and should the former, one of the advantages claimed for this manner of building will be lost.

“4th, Because sufficient land cannot be set apart for so many persons to work on. Insane criminals are rather above the average of insane

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workers; but, as they are best adapted to common farm labor, they require a comparatively large farm. Haying and hoeing in the summer, and wood-chopping and stone-cutting in the winter, will furnish excellent occupation, and in some cases be the means of cure.

“ 5th, Because feigners will be much more apt to be transferred to the asylum when near a prison. If a convict grows particularly violent or vicious, and the keeper becomes afraid of him, the prison authorities are willing to send him at once to the asylum, as it can be done without trouble or expense.

“ 6th, Because a certain degree of disgrace will be connected (in the public mind) with confinement in a “prison asylum,” as it will probably be called. For this reason the committal of some persons to this asylum will be opposed by their friends.

“ The land in the prison-grounds may not cost any thing, which will be a saving in the beginning; but this saving will be compensated by the increased amount of crops on the asylum farm. This farm can be made to raise nearly every thing in the food way, including beef, pork, and butter. A large amount of fuel, too, can be saved by using wood. Should a farm be found with stone, a quarry could be opened, and material thus furnished for additions to the building. Maintenance is one of the chief of hospital expenditures; and, as you know, the daily *per capita* cost can be very much reduced, when we are able to obtain produce off a farm. The additional extra cost of a good farm is quickly overtaken, and then for all time we have a saving for every year.”

Dr. Channing's remarks, above quoted, open nearly all aspects of the question which has been referred to this Board by the Legislature. Let us first consider more particularly that class of the insane who, under various names, — such as “criminal lunatics,” “insane criminals,” the “criminally insane,” etc., — are to be provided for separately. Mr. F. H. Wines of Illinois, in the report of the Illinois Board of Public Charities for 1880 (of which he is the Secretary), discusses the different classes of insane persons who come under this general designation, defining as “criminally disposed lunatics,” or the “criminally insane,” “persons not convicted of crime, who yet manifest criminal character and impulses, and who even commit in the hospitals acts which would be crimes if committed by persons not insane.” He then goes on to say that the distinction between “insane criminals” (by which he means, apparently, insane convicts) and the “criminal insane,” is one clearly recognized by experts in insanity. With the former the criminal character is funda-

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mental, and insanity has supervened; with the latter, insanity is the primary condition, but assumes the form of criminal impulses. In both, there is a blending or intermixture of criminal and insane characteristics, which it is sometimes difficult to distinguish, so as to enable an attending physician to determine whether particular acts have their source in one or the other form of perversion from the normal, mental, and moral standard of human action. In the English asylum at Broadmoor both classes are received and treated in the same institution. Without entering into subtleties of definition, which yet have a real foundation in the character of criminal insanity, it is convenient here to adopt, for the whole class of whom we speak, the name of "the criminal insane," and to include in it at least three subdivisions. By "the criminal insane," then, we mean —

1. Those insane persons who have committed some crime while insane, and have been adjudged lunatics by the court.

2. Those persons who have become insane while awaiting trial or sentence in prison, or while serving out sentence as convicts.

3. Persons, obviously insane and confined in asylums, who either commit offences there, or manifest such a criminal disposition and tendency as to make it dangerous or improper to permit their association with the ordinary insane. This is perhaps the class most needing to be separated from the ordinary insane.

The number of the first two classes now in our State lunatic hospitals is about 130, of whom above 100 are men. The number of the third class would vary according to the strictness with which they were classified: it must be at least 30 in all the hospitals. With some exceptions, depending upon the nature of their insanity and their condition at the present time, it is eminently desirable that these three subdivisions of the criminal insane should be kept by themselves, and not made to mingle with other patients; for one reason, because it is natural to suppose they are more dangerous to their fellow-patients and attendants. If they have committed dangerous acts once while insane, it is necessary to infer that there will still be a proclivity to the same thing while they are in their

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diseased state. They also need different treatment from other patients. They must be more closely and securely confined and watched, and they need a larger quota of attendants than most of our insane. Again, other patients, not criminals, have very delicate feelings in this regard, and object to confinement in the same ward with those who have committed a crime; while the universal sentiment of the friends of patients condemns this association of criminals and other patients in the same halls and at the same tables, even if the phase of insanity be equally severe in both cases.

Dr. C. F. Folsom, formerly a member of this Board, in a recent paper, makes the following remarks, which may properly be quoted:—

“Provision is needed for such of the criminal insane as cannot properly be kept in prisons without manifest injustice, or retained in the asylums without seriously interfering with the management that is best suited to such institutions. They do not by any means include all the insane who have committed or attempted crimes, and could for many years, at least, be cared for in the Essex County Asylum, which is discreditable to us as a place of retention for the ordinary insane, and which might easily be adapted to the wants of as many irresponsible criminals as should be kept in custody by themselves. It is unwise to place them all in one of our present hospitals for the insane, and our practice of scattering them about in several institutions seriously disorders the organization and management of them all; for the treatment in any particular ward is chiefly governed by its worse cases, and the attempt to care for dangerous criminals and others upon one method almost always results both in unnecessary and harmful restrictions for the one class, and in a hazardous amount of liberty for the other.”

In a letter addressed to Dr. Hitchcock, under date of Oct. 11, 1881, Dr. Folsom makes the following more specific declarations and suggestions:—

“Of the insane of the criminal class who became so while under sentence, it seems to me that a large portion should remain in prison until the expiration of their sentence, and then, if clearly insane, be sent to an asylum for the criminal insane; that is, those whose insanity is such that they can be properly managed in the prisons to which they are first committed. For those found insane by the criminal courts, if they belong to the criminal class, the asylum for criminal lunatics should almost always be resorted to; if they were previously of good character, I think the vast majority should go at least to the criminal lunatic asylum

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first, a certain number to be afterwards transferred to the ordinary asylum, if harmless and well-behaved, and easily managed, and in no way dangerous. Those of previously good character who have committed trivial offences, or who can be perfectly easily managed, should go to the ordinary lunatic hospital at once. As patients in the criminal asylum become demented and harmless, they may be very properly transferred to the ordinary asylum.

“It seems to me that the prison is the proper place for so many criminals proper as can be kept there without doing them injustice, and that the asylum is the best place to treat as many of the insane as can be safely dealt with there. Consequently I would not send to the criminal asylum any who could be treated in an insane asylum like other patients, provided they had been of previously good character. Judging by experience in England, the cost per patient in the criminal asylum will be nearly or quite twice as great as in an ordinary asylum, and from fifty to sixty per cent greater than in the prisons. A receptacle for sixty criminal insane, would, I think, be sufficient for this State for a long time to come.”

It will be observed that there is a considerable difference of opinion between Dr. Folsom, in the passage quoted above, and Drs. Channing and Macdonald, in regard to keeping the insane in a prison or in connection with one; but all agree that a certain portion of the criminal insane can properly be treated in the ordinary asylums. Assuming this as a settled fact, and leaving the probable number of the patients to be determined by actual examination after a criminal insane asylum shall have been opened, either in connection with some other establishment or by itself, we shall, in another portion of this Report, recommend an alternative plan for such an asylum; that is, two or three plans from which the best may be chosen.

DIVISIONS OF THIS REPORT.

GENERAL DUTIES OF THE BOARD.—DIVISIONS OF THIS REPORT.

Besides the special reports required of this Board by the last Legislature, and the general duties of administration and supervision imposed by the General Statute above cited (chap. 79–80 of the Public Statutes), certain general duties are imposed, in respect to a yearly report, in sect. 3 of chap. 79; the language of the law being as follows:—

“It shall embody in its report a properly classified and tabulated statement of the receipts and expenses of the Board, and of each of the several institutions named above for the said year, and a corresponding classified and tabulated statement of their estimates for the year ensuing, with its opinion as to the necessity or expediency of appropriations in accordance with said estimates; but this provision shall not apply to estimates for the ordinary expenses of lunatic hospitals. The report shall also present a concise review of the work of the several institutions for the year preceding, with such suggestions and recommendations as to them, and the charitable, reformatory, and sanitary interests of the State, as may be deemed expedient.”

The so-called receipts of the Board have already been stated. Its expenses and those of the State institutions will be given, with proper classification and tabulation, in the Appendix. The estimates for the year 1882 will be given in subsequent pages of this Report itself, along with a statement of expenses for the calendar year 1881. The required “review of the work of the several institutions for the year” will be found, in regard to the establishments for the insane, in Part Second, “Lunacy;” in regard to the State Almshouse and State Workhouse, in the pages given to the State Charities; and in regard to the schools and asylums for children, including the Idiot School, in the pages given to the “Children of the State.” But the general statements affecting all these State establishments, and the “recommendations as to them and the charitable, reformatory, and sanitary interests of the State,” will be found in the preliminary chapter of Part Third or in the concluding portions of this Report; while most of the statistical information concerning the State, municipal, and private institutions of charity and reformation, will be found in the Appendix.

PART FIRST. — PUBLIC HEALTH.

PART FIRST.

PUBLIC HEALTH.

GENERAL WORK OF THE YEAR.

THE general sanitary work of the Board during the year 1881 will be stated in this chapter under appropriate headings; and, first, in regard to

1. *Noxious and Offensive Trades.*

The soap-boiling establishment of Amos Sawyer of Northampton was again brought before the Board upon petition of certain residents of the above-named town, representing that this establishment had become a serious nuisance by reason of offensive smells and the pollution of a neighboring water-course. An examination of the premises was made by the Health Officer of the Board. Defects in the processes of manufacture, and in the methods used for disposal of waste substances, were pointed out; and a promise was made by Mr. Sawyer that changes should be introduced in both these directions, which, it was confidently believed, would abate the existing nuisances. There have, however, been renewed complaints during the past summer; and it seems probable that some additional action will be necessary, either by this Board or by the local Board of Health.

The factory of the Standard Fertilizer Company at Duxbury has also been brought to the notice of the Board by petition of residents of that town, who are not satisfied with the action taken by the local Board of Health. This establishment has been in operation for about a year, and the character of its products is similar to those manufactured by the Bradley Fertilizer Company and the Pacific Guano Com-

SLAUGHTER-HOUSES. — WATER-SUPPLY.

pany. Such factories are almost of necessity offensive; and there is no question that this particular establishment has been at times very offensive during the past summer, not only to a large number of people visiting Duxbury as a place of summer resort, but to many who have been for a number of years resident there. The local Board of Health has, however, had a public hearing in reference to this nuisance, and has, in consequence, issued certain orders, which they believe will, if properly carried out, remove all existing causes of complaint; and, until it is apparent that this business cannot be controlled by the health authorities of Duxbury, it is not desirable that action should be taken by the State Board.

A number of small slaughter-houses in various towns of the Commonwealth have been complained of; but none of them have been formally brought to the attention of the Board, except one in Belchertown. This building was found, on inspection, to be too near to dwelling-houses, and not properly constructed for the purposes for which it is used. As the selectmen of Belchertown are ready to take all necessary steps for the safe carrying-on of this business, the matter has been left in their hands.

The great slaughtering-houses in the neighborhood of Boston are still conducted with a very satisfactory success in all their sanitary aspects. They have not been brought to the attention of this Board as subjects of complaint; neither have they, so far as is known to us, required new or unusual local regulations.

2. *Water-Supplies.*

The pollution of some of the sources of the water-supply of the city of Boston has been almost constantly before the Board during the past year. A complaint was made in the month of February, 1880, under the provisions of chap. 183 of the Statutes of 1878, against certain parties in the town of Natick, alleged to have discharged for a number of years, and to be still in the habit of discharging, into Pegan Brook, impure and deleterious substances; these substances finding their way, by direct flow, into Lake Cochituate. An extended hearing took place; and the Board, on the 5th of June, 1880, ordered the parties complained of to cease and desist

THE PEGAN BROOK POLLUTION.

from further draining and emptying human excrement, sewage, and other matter, polluting and fouling the water of Pegan Brook, on and after the fifteenth day of July, 1880.

Thereupon the several parties complained of applied by petition to the Superior Court in Middlesex County for a sheriff's jury to determine whether the order of the Board should be altered, affirmed, or annulled. The city of Boston objected on the ground that the appeal was not properly brought; the State Board of Health, Lunacy, and Charity not having been notified of the appeal, and not having been made parties thereto. But a jury was ordered, and summoned from three towns adjacent to Natick. At this trial the objections of Boston were renewed, and were overruled by the sheriff. The hearing went on, and the jury wholly annulled the order of this Board. The verdicts were returned to the Superior Court, and accepted; but the city of Boston appealed, and the questions of law were fully argued in the Supreme Court. Unfortunately the court sustained the first exception; and, as this rendered it unnecessary for the court to go farther, the main questions were not touched. The petitions having been dismissed, the order of the Board is binding in all these cases. As they are the most important yet brought to the attention of the Board, the above-mentioned opinion of the Supreme Court is herewith given:—

SUPREME JUDICIAL COURT.

JANUARY LAW TERM, 1881.

RILEY PEBBLES *v.* CITY OF BOSTON.

Opinion of the Court.

SOULE, J. — This petition for a jury seeks to have a decree of the State Board of Health, with which the petitioner is dissatisfied, altered or annulled. To this end he made a petition, in due season after service of the decree, to the Superior Court for a jury to try the questions involved in determining whether the decree was a proper one or not. No notice was issued to any one to show cause why the prayer of the petition should not be granted; and the State Board of Health was not made a party to the proceedings, nor in any way notified of the appeal. The city of Boston objected, before the jury were impanelled, that for these reasons the proceedings were void; but the objection was overruled, a trial was had, and a verdict returned which annulled the decree of the Board of Health, and was accepted against the objection of the city of Boston, which appealed to this court. The question for consideration is, whether the

OPINION OF THE SUPREME COURT.

State Board of Health ought not in some way to have been made a party to the proceedings, or informed of the appeal from its decision.

The State Board of Health was created by the Stat. of 1869, chap. 420. Its chief duty, as stated in the statute, was to take cognizance of the interests of health and life among the citizens of this Commonwealth. It was required to elect a secretary. The Stat. of 1878, chap. 183, gave to this Board, in addition to its other duties and powers, the supervision of all rivers, streams, and ponds used by any city or town as sources of water-supply, except the Merrinack, Connecticut, and Concord Rivers, and made it its duty to examine the same from time to time, and inquire what pollutions exist and their causes; and authorized it, whenever such source of supply has been polluted in any of the ways forbidden by sects. 1 and 2 of the statute, and in the judgment of the Board the public health requires it, to order any person or corporation to desist from violating the law, and to remedy the pollution; first giving the person or corporation an opportunity to be heard. The action of the Board may be either the result of its own observation and discoveries in the investigations called for by the statute, or it may be taken in consequence of an application by a city or town (sect. 4). Any person aggrieved by an order of the Board may appeal therefrom, and shall, within three days from the service thereof on him, apply to the Superior Court or some justice thereof for a jury. Otherwise his right of appeal is gone, except in those cases in which the right is preserved for thirty days, when the person aggrieved, by mistake of law or fact or by accident, omits to appeal and apply for a jury within three days after service of the order (Stat. 1865, chap. 263). This court or any justice thereof, in term time or vacation, has power to issue an injunction to enforce the orders of the Board (Stat. 1878, chap. 183, sect. 5). And during the pendency of the appeal the pollution against which the order has issued "shall not be continued contrary to the order of said Board" (sect. 6).

It is clear from these provisions of law that the proceedings instituted by the person aggrieved by an order of the Board must begin with an appeal from the order. They are not in the nature of independent original proceedings, but have their foundation in an appeal. The action of the Board of Health, whether taken on its own motion as the result of its voluntary investigations, or pursuant to an application by a city or town, is judicial in its character; and an order made by the Board, and not appealed from, has the binding force and effect of a judgment by a tribunal of competent jurisdiction. In the case of ordinary judicial proceedings an appeal can be taken only by filing with the clerk of the court a notice of appeal or otherwise informing the tribunal appealed from that the party aggrieved intends to avail himself of his right to obtain the judgment of a higher tribunal. If this is not done, there is nothing to prevent the enforcement of the judgment by the appropriate process, and the party aggrieved has no means of showing to the appellate tribunal that he is rightfully before it, and so his right is lost.

THE WOBURN TANNERIES.

In the absence of any thing in the statutes to indicate that appeals from orders of the State Board of Health are to be taken in any other way than that which has become familiar in analogous cases before other tribunals, it must be held that they are to be taken in substantially the same way with such appeals; and that the right to appeal can be preserved only by informing the Board in some definite and distinct manner that an appeal is taken. It certainly cannot be supposed that the Legislature intended that an appeal may be taken, simply by making a petition to the Superior Court or one of its judges for a jury, while the tribunal appealed from is left, in ignorance of the appeal, to proceed, if it sees fit, through the proper application to this court for the enforcement of its order thus appealed from. If that were the proper interpretation of the statutes, they would be singularly clumsy in their operation and effect; and such an interpretation is not to be adopted in preference to another which leads to more reasonable results, and is equally consistent with the ordinary meaning of the language used. The city of Boston objected to the proceedings under the petition for a jury, because the Board of Health had not been notified of the appeal at the earliest possible moment, and was entitled to have the trial by jury refused, and, failing that, to have the verdict set aside.

The petitioner, not having entered an appeal with the Board of Health, was not entitled to a jury.

Verdict set aside, and petition for jury dismissed.

The methods employed at several of the tanneries in Woburn, and at the glue factory in Stoneham, all upon streams entering directly or indirectly into the Mystic Lake water-supply, have been continued causes of complaint on the part of the Water Board of the City of Boston. A day was spent by the full Board in a careful examination of the territory. Several visits have been made by the Health Committee; and hearings have taken place at the State House before the Board, at which Boston and the parties complained of have been heard.

The arrangements at the tannery of the Messrs. Dow not appearing to this Board sufficient for the complete protection of the water-supply of Boston, they were directed on the 19th November to employ additional safeguards, which will, for the present at least, prevent the direct entrance of refuse from this tannery into Horn Pond, and from this into the Mystic. But, when all that can be devised of this sort is done, there will still remain a certain amount of wash from foul surfaces necessarily flowing into Horn Pond; and there

THE BOSTON WATER-SUPPLY.

is, in our opinion, no permanent relief from this constant pollution, but in some system of sewerage extensive enough to carry these matters to deep-sea currents. Such a system is evidently far beyond the resources of any single town or city.

In the supplement to the First Annual Report of this Board a paper was printed describing some impurities of drinking-water caused by vegetable growths. In this paper Professor Farlow presented in popular form a statement of what is known with regard to the effect of the growth of different plants upon the water in the ponds, streams, and basins which supply the cities and towns of the Commonwealth. A striking illustration of the great value of such studies has been given during the past year by the unfortunate experience of the city of Boston.

For months a very large portion of the water-supply of the city was wholly unfit for any household use. Professor Rensen, employed by the city to investigate the subject, explains the intolerable smell and taste of the water by the presence in the pond of a fresh-water sponge, not hitherto suspected to be capable of producing such disastrous results. As this growth took place in a pond not now seriously contaminated by sewage, the consideration of its influence has no immediate connection with general pollution of streams, nor does the use of this water appear to have had a noticeable effect upon the death-rate of the city or upon the health of the inhabitants; though it is difficult to believe that some deleterious effect was not produced upon the human system by a water so repulsive to the senses of taste and smell.

Inasmuch as every other pond in the Commonwealth is exposed to contamination by the same growth, either vegetable or animal, this subject will continue to receive the attention of the Board.

3. *Food.*

Trichinosis. — The results of the examination of a large number of swine, published in the supplement to the First Report of the Board, have attracted great attention, not only on the part of scientific investigators into the diseases of this domestic animal, but also among those interested in the vast commercial importance of the hog as an article of food export.

FOOD ADULTERATION.

Of the 2,701 hogs examined, 154 were found to contain trichinæ. 6,068 have been examined during the past year, of which 191 were trichinous.

That is to say, one hog in every fourteen examined in 1880 contained trichinæ, and only one in every twenty-five in 1881. This same variation has been noted in Germany, where examinations are required by law of all hogs slaughtered, and is not at present accounted for.

The attention of observers throughout the State was called to the dangers of eating pork thus infected, and a request made for a prompt report of all cases of the disease in a human subject. There have been brought to the notice of the Board three cases only, occurring in one family, none fatal. The persons affected had all eaten raw ham. Other members of the same family, who had eaten as freely from the same ham cooked, escaped entirely. In other parts of the country, where the custom prevails of using pork in a nearly raw state, the disease is much more common. As it has been conclusively shown that a temperature throughout the pork of 140° F. will destroy trichinæ, the ordinary methods of cooking offer a nearly complete protection against this parasite. The manner in which the hog becomes infected has not been proved; but the subject is believed to be of enough importance to demand continued investigation on the part of the Board.

Another topic of the greatest importance to the public health has been brought prominently forward by the action of the National Board of Trade in offering a prize for the best paper offered in competition upon the subject of food adulteration. One of the main objects of this competition was to secure the draft of a law sufficient to protect the people from the injury resulting from the adulteration of food and drugs, and yet at the same time not to restrict, in a meddlesome manner, legitimate commerce. Though the examinations made from time to time by this Board have not discovered so great an amount of adulteration of commercial articles of food as many have supposed to exist, yet enough has been proved to show that some well-recognized authority should have charge of the necessary examinations of food and

THE PROPOSED FOOD ADULTERATION LAW.

drugs, and should have power under suitable restrictions to prohibit the sale of those articles which are injurious to health.

The bill which is here submitted has been enacted in New York and New Jersey. It will be noticed that it has not been thought advisable that this law should in detail define what an adulteration is. As many of the prominent articles of commerce, though they may be said to be adulterated, are quite harmless, in some cases useful, it should be left to the discretion of some competent authority to relieve such articles from the fines imposed by this bill. The honest and persistent exposing of fraudulent practices will generally have an effect upon public opinion fully equal to any penalty imposed by the courts, and will in the end prove as effectual in making such practices unprofitable.

The Proposed Food Adulteration Law.

SECTION 1. No person shall within this state manufacture, have, offer for sale, or sell any article of food or drugs which is adulterated within the meaning of this act; and any person violating this provision shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by fine not exceeding fifty dollars for the first offence, and not exceeding one hundred dollars for each subsequent offence.

SECT. 2. The term "food" as used in this act shall include every article used for food or drink by man. The term "drug" as used in this act shall include all medicines for internal or external use.

SECT. 3. An article shall be deemed to be adulterated within the meaning of this act, —

a. In the case of drugs, —

1. If, when sold under or by a name recognized in the United States pharmacopœia, it differs from the standard of strength, quality, or purity laid down therein.

2. If, when sold under or by a name not recognized in the United States pharmacopœia, but which is found in some other pharmacopœia, or other standard work on materia medica, it differs materially from the standard of strength, quality, or purity laid down in such work.

3. If its strength or purity fall below the professed standard under which it is sold.

b. In case of food or drink, —

1. If any substance or substances has or have been mixed with it so as to reduce, or lower, or injuriously affect its quality or strength.

2. If any inferior or cheaper substance or substances have been substituted wholly or in part for the article.

THE PROPOSED FOOD ADULTERATION LAW.

3. If any valuable constituent of the article has been wholly or in part abstracted.

4. If it be an imitation of, or be sold under the name of, another article.

5. If it consists wholly or in part of a deceased, or decomposed, or putrid, or rotten, animal or vegetable substance, whether manufactured or not, or, in the case of milk, if it is the produce of a diseased animal.

6. If it be colored, or coated, or polished, or powdered whereby damage is concealed, or it is made to appear better than it really is, or of greater value.

7. If it contain any added poisonous ingredient, or any ingredient which may render such article injurious to the health of a person consuming it.

Provided that the state board of health, lunacy, and charity may from time to time declare certain articles or preparations to be exempt from the provisions of this act; and provided further that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles of food, provided that the same are not injurious to health, and that the articles are distinctly labelled as a mixture, stating the components of the mixture.

SECT. 4. It shall be the duty of the state board of health, lunacy, and charity to prepare and publish from time to time lists of the articles, mixtures, or compounds declared to be exempt from the provisions of this act, in accordance with the preceding section. The state board of health, lunacy, and charity shall also from time to time fix the limits of variability permissible in any article of food, or any drug, or compound, the standard of which is not established by any national pharmacopœia.

SECT. 5. The state board of health, lunacy, and charity shall take cognizance of the interests of the public health as it relates to the sale of food and drugs, and the adulteration of the same, and make all necessary investigations and inquiries thereto.

It shall also have the supervision of the appointment of public analysts and chemists, and upon its recommendation, whenever it shall deem any such officers incompetent, the appointment of any and every such officer shall be revoked, and be held to be void and of no effect.

Within thirty days after the passage of this act, the state board of health, lunacy, and charity shall meet, and adopt such measures as may seem necessary to facilitate the enforcement of this act, and prepare rules and regulations with regard to the proper methods of collecting and examining articles of food or drugs, and for the appointment of the necessary inspectors and analysts. And the state board of health, lunacy, and charity shall be authorized to expend, in addition to all sums already appropriated for said board, an amount not exceeding three thousand dollars, for the purpose of carrying out the provisions of this act; and the sum of five thousand dollars is hereby appropriated out of any money in the treasury not otherwise appropriated for the purposes in this section provided.

SANITARY CONDITION OF PUBLIC INSTITUTIONS.

SECT. 6. Every person selling, or offering, or exposing any article of food or drugs for sale, or delivering any article to purchasers, shall be bound to serve or supply any public analyst or other agent of the state or local board of health appointed under this act, who shall apply to him for that purpose, and on his tendering the value of the same, with a sample sufficient for the purpose of analysis of any article which is included in this act, and which is in the possession of the person selling, under a penalty not exceeding fifty dollars for a first offence, and one hundred dollars for a second and subsequent offences.

SECT. 7. Any violation of the provisions of this act shall be treated and punished as a misdemeanor, and whoever shall impede, obstruct, hinder, or otherwise prevent any analyst, inspector, or prosecuting officer in the performance of his duty, shall be guilty of a misdemeanor, and shall be liable to indictment and punishment therefor.

SECT. 8. Any act or parts of acts inconsistent with the provisions of this act are hereby repealed.

4. *The Public Institutions.*

Changes have been recommended in the various public institutions under the supervision of the Board, where the sanitary arrangements have not been satisfactory. The building used as a hospital at the State Primary School at Monson has been thoroughly reconstructed, and in its present shape is a much more satisfactory structure than it seemed possible a year ago to obtain from the old, badly planned, insufficiently ventilated, and entirely unfit hospital. Changes were suggested in the ventilation of the Lunatic Asylum at Northampton, and these have been made. The water-supply of the State Workhouse at Bridgewater has been examined, and the discontinuance of the use of one of the sources of supply recommended, this source proving under chemical examination to be impure.

At the request of the Prison Commissioners, a sanitary inspection was made of the State Prison at Concord. Some serious defects in the ventilation of the cells were discovered. The drinking-water was found to be exposed directly to the influence of sewer gases. The drainage of the officers' houses was so constructed that the wells had become polluted by leakage from cesspools and privies, and in many cases had already been abandoned; and the drainage of the prison still entered a tributary of the Concord River, notwithstanding

LOCAL BOARDS OF HEALTH.

the prohibition contained in chap. 10 of the Acts of 1878. In consequence of the recommendation of the Board, immediate attention was given by the Prison Commissioners to the matters above referred to; the ventilation of the prison has been improved, the drainage of the officers' houses made safe; the sewage of the prison is purified by irrigation before entering the stream. From the nearness of the irrigation field to the wells of the prison, there is, however, danger of contamination of the general water-supply for drinking purposes.

5. Local Boards of Health.

The absence of an officially constituted and competent sanitary authority in each of the cities and towns of the Commonwealth has proved a serious hindrance to the obtaining by the Board of prompt and trustworthy information as to the prevalence of contagious diseases, and to the gathering of necessary statistics upon the various subjects pertaining to the public health. The following bill was reported to the Legislature of the last year by the Committee upon Public Health, and was apparently regarded with some favor, though it did not become a law:—

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:—

Section one of chapter twenty-six of the General Statutes is hereby amended so as to read as follows:—

“SECTION 1. In each of the several towns of this commonwealth the board of selectmen shall, in the month of January, in the year eighteen hundred and eighty-two, appoint two persons, neither of whom shall be a member of the board of selectmen, and one of whom shall be a physician (provided there be a resident physician), who, together with the chairman of the board of selectmen, shall constitute the board of health of each town.

“The board so constituted shall enter upon its duties on the first Monday of February then next succeeding. The terms of office of the two appointed members shall be so arranged at the time of their appointment that the term of one shall expire on the first Monday in February in each year after the year eighteen hundred and eighty-two.

“In each of said towns said boards of health shall, annually, in the month of January, present to the state board of health, lunacy, and charity, a report made up to and including the thirty-first day of the preceding December, upon the sanitary condition of the town during the year.”

SANITARY IMPROVEMENTS. — PREVALENT DISEASES.

It will be noticed that provision is made for an annual report from the local boards to this Board; and in this provision lies one of the greatest advantages offered by the bill. The Board would secure a correspondent of unquestioned authority in every town, and the health authorities of the town would be brought into more immediate relations with the State Board, and could more readily obtain that advice and assistance so often desired in the abatement of nuisances, oftentimes supported by local influences too powerful for a local board.

A Board of Health has been formed in Brockton, and, in the short term of its service, has much improved the sanitary condition of the city. As this town has recently completed a system of public water-supply, and is as yet not provided with sewers, there will probably arise in the near future some troublesome questions as to the most harmless method of disposing of the sewage. One of the plans suggested is, drainage into the Salisbury River, one of the streams emptying into the Taunton River. The portion of the river selected for the out-fall is more than twenty miles distant from Taunton, and therefore is not within the limit established by the Act of 1878.

Chap. 133 of the Acts of the year 1877 was so amended by the Legislature of 1881, that local boards of health have now the power to make satisfactory rules for regulating the construction of house-drainage, and its connection with the public sewers. Orders for this purpose have been prepared in a number of cities and towns, and are now in successful operation.

6. *Prevalent Diseases and Causes of Disease.*

While the past year has not been marked by the widespread prevalence of any one of the more destructive diseases, it has still been of less than the average good health. Measles, almost universally prevalent during the winter and spring, was not of a severe type; but the fatal epidemic of diphtheria has continued, and with apparent increase above the preceding two years. The so-called infection diseases have generally caused a larger amount of sickness than usual.

PREVALENT DISEASES IN NAHANT AND LYNN.

Typhoid fever has prevailed more extensively throughout the whole State than for a number of years, but has been of an unusually mild type. The towns with public and well-regulated water-supplies present the smallest number of reported cases. One of the marked outbreaks of this disease was on the peninsula of Nahant during the summer and fall. So far as can be at present ascertained, there have been about sixty cases of the disease occurring either at Nahant, or shortly after the return home of those who had been summer residents there. As the deaths thus far known do not exceed four, most of the cases were light.

The great natural advantages for health of this small and wealthy town have been lost by a neglect of many of the simpler sanitary precautions. The water for domestic uses was obtained either from wells or rain-water cisterns, not sufficiently distant from cesspools and privies. In the case of some of these wells and cisterns, chemical analysis has demonstrated such contamination as comes from direct pollution by human excreta. The town authorities have entered upon a thorough and well-directed investigation into the sanitary condition of the place, In marked contrast to the condition of Nahant, so far as this disease is concerned, is Lynn, where comparatively few cases of typhoid fever have been up to this time reported; and yet the general conditions affecting health in Lynn are far from favorable. It has, however, a Board of Health and a voluntary sanitary association, which has educated public opinion in many ways; and a public water-supply, which, though not always satisfactory, has during the past year been the subject of less complaint than in the preceding year. A comparison of these two neighboring towns shows what has been so often observed before, that, if typhoid fever originates in filth, the filth is very often so concealed that only an expert can recognize it.

Intermittent fever has appeared in many of the towns upon the eastern water-shed of the State, where in the previous year it was unknown. As a general rule, there have been some constant local peculiarities which it is customary to associate with the first manifestation of this disease and its subsequent spread. In a few instances, though, the first

THE SMALL-POX IN MASSACHUSETTS.

cases have not appeared in those districts where marsh influences have been most prominent. The largest number of cases in the eastern portion of the State have been upon streams emptying into Narragansett Bay. These cases are of great interest, as the first recorded in this part of the State. They have not, however, been of any serious concern, so far as treatment goes, to which they have readily yielded, and have not presented the aggravated forms that have made this disease so justly feared in other sections of the United States. Early in the year it became evident, from the mortality returns of the cities of Philadelphia and New York, that small-pox was rapidly increasing in those two cities, more especially in the former. A copy of the following paper was therefore sent to the chairman of the board of health of every town in the State:—

“DEAR SIR,—The State Board of Health, Lunacy, and Charity voted at its regular monthly meeting, Feb. 5, 1881, that a communication be sent to the towns of the Commonwealth, urging the importance of a protection of the people before small-pox appears in this State. That it may be more or less prevalent in this State during the coming year seems probable for the following reasons:—

“The deaths from small-pox in the city of Philadelphia for the week ending Feb. 5, 1881, number sixty-one. They have steadily increased in number since October, 1880. Cases or deaths from the same disease have been reported during the last few weeks in the cities of New York, Brooklyn, Pittsburg, and Chicago.

“In several cities and towns of this Commonwealth, during the year last past, there have been outbreaks of the disease, which, by prompt isolation of individuals attacked and vaccination of those exposed, have been happily checked.

“It is, however, certain that even in this State large numbers are still without protection by reason of their neglect to be vaccinated, or because vaccination has not been properly performed

“It has been sufficiently demonstrated that thorough vaccination with suitable lymph affords a practical protection against the fatality of small-pox or its worst symptoms.

“It is not to be asserted that it furnishes absolute protection against the attacks of this disease, which does occasionally occur in the individual who has been vaccinated successfully and repeatedly, or who has had a previous attack or attacks of small-pox.

“But it has been established by a vast amount of evidence, that vaccination renders the individual, in first place, much less liable to an attack of small-pox; in second place, the disease, if it does occur, is deprived of its most dangerous characteristics.

SMALL-POX IN ADAMS AND OTHER TOWNS.

“The objections formerly urged against vaccination, by reason of danger of transmitting by use of humanized lymph various diseases, can now be obviated by employment of lymph obtained from the cow.

“In view, then, of the possible appearance of small-pox in this State, it is earnestly desired that a vaccination of all unprotected individuals should be made, and that school committees of towns and cities should insist upon a certificate of proper vaccination before admission to the public schools. The examination to determine the existence of the characteristic scar of vaccination should in all cases be made by an educated physician.

“Your attention is called to the following extracts from the Statutes of the Commonwealth relating to vaccination, small-pox, and other dangerous diseases.”

Vaccination was very generally undertaken; and to this timely precaution and the labors of the various health boards the escape of this community from a serious outbreak of the disease is probably due. The largest number of cases was at Adams, where the disease, confined to unvaccinated French Canadians, was of a very severe type. Through failure at first to properly recognize the disease, many unprotected persons were exposed, and sickened with small-pox. The town then removed all cases to a hospital sufficiently distant from town, undertook a general vaccination, and put an end to the epidemic. In this case, as in several others, unvaccinated citizens of the Dominion of Canada were almost the only victims of the disease. The following communication of the Health Officer of the Board to his Excellency Gov. Long was transmitted to the Secretary of State of the United States, Hon. J. G. Blaine:—

18th MAY, 1881.

SIR, — I have just returned from an examination of the people suffering from small-pox in the town of Adams, and beg leave to submit the following report of the condition of things found to exist there: This disease first appeared in the town of Adams nearly six weeks ago in the person of a young French Canadian woman. Since that time forty-nine persons have contracted the disease, nine have died, and several more are so sick that their death is almost certain. These people are, without exception, as I am informed, from the Dominion of Canada, coming to this State to obtain work in our factories for limited periods of time only. Of those now sick or in quarantine, twenty-four have already become a charge upon the charities of the State. Outbreaks of this disease in Fall River, Salem, Holyoke, and Williamsburg within the last year or two, have also been almost exclusively among persons recently arrived from the Dominion of Canada.

SMALL-POX BROUGHT FROM CANADA.

The health laws of Canada appear to be sufficiently strict for the protection of the community if they were enforced. The very marked immunity enjoyed by the people of this State from the ravages of small-pox is largely due to the fact that children are not admitted to the public schools without evidence of previous vaccination. Of the class of people above mentioned, only those of a school age would be vaccinated, and the condition of adults or very young children could only be ascertained by the expensive and annoying process of an inspection of the community.

Is it not possible that some relief from this dangerous pestilence could be obtained by calling the attention of the Canadian Government to the unprotected and dangerous condition of its subjects who come to this country for short periods of time and take home their earnings to Canada? or cannot the government of the United States secure a compulsory vaccination of immigrants at the frontier?

I am, very respectfully, your obedient servant,
(Signed) H. P. WALCOTT, M.D., *Health Officer*.

The subsequent correspondence explains itself.

DEPARTMENT OF STATE, WASHINGTON, May 26, 1881.

His Excellency JOHN D. LONG, *Governor of Massachusetts*.

SIR, — I have the honor to acknowledge the receipt of your letter of the 19th instant, enclosing copy of a communication addressed to you by H. P. Walcott, M.D., Health Officer of the Massachusetts Board of Health, Lunacy, and Charity, touching the dangerous introduction of small-pox from Canada into the manufacturing towns of the State.

Concurring in your view of the importance of the subject, I have hastened to bring it to the attention of the government of the Dominion of Canada through the British Minister here. I have also communicated a copy of your letter to the National Board of Health in this city, with a view to its making such recommendations as may conduce to the adoption of proper measures of protection.

I have the honor to be your Excellency's obedient servant,
J. G. BLAINE.

NATIONAL BOARD OF HEALTH, WASHINGTON, D.C., June 3, 1881.

Hon. J. G. BLAINE, *Secretary of State*, Washington, D.C.

SIR, — Referring to your communication of May 26, enclosing a copy of a letter from Gov. Long of Massachusetts touching the small-pox epidemic at Adams among French Canadian immigrants, I have to inform you, that the papers were laid before the National Board of Health at its semi-annual meeting on the 1st instant: and I have been instructed to say, that as regards the introduction of small-pox into the United States by the land frontiers, or the prevention of its transmission from one State to another, the Act of Congress which defines the powers and prescribes the duties of the Board does not authorize it to take the initiative

CORRESPONDENCE OF THE STATE DEPARTMENT.

in such matters; but it is necessary that the State to be protected should make an application to this Board for aid, indicating the manner in which aid is desired. I am further directed to inform you that this Board has opened a correspondence with the health authorities of the principal ports of the United States at which emigrants arrive from Europe, with a view to the inauguration of measures for the compulsory vaccination of steerage passengers who had not previously been vaccinated; it being the desire of the Board to co-operate with the State and municipal authorities to the end of preventing the introduction of small-pox into the United States from European ports where that disease now exclusively prevails.

Very respectfully your obedient servant,

(Signed)

J. L. CABELL,

President of National Board of Health.

DEPARTMENT OF STATE, WASHINGTON, May 26, 1881.

The Right Honorable Sir EDWARD THORNTON, K.C.B., *etc.*

SIR, — I have the honor to bring to the attention of the government of the Dominion of Canada, through you, a circumstance which is causing apprehension in the manufacturing districts of Massachusetts, whither Canadian subjects resort at this season to obtain employment in the factories for a limited period.

I am informed by the Governor of the State of Massachusetts that small-pox appeared in the town of Adams in that State, about seven weeks ago, in the person of a young French Canadian woman; since which time forty-nine persons have contracted the disease, of whom nine have died, and others are not expected to recover. All those affected are reported to be, without exception, from the Dominion of Canada. Twenty-four of them have become a charge upon the charities of the State. Within the past two years similar outbreaks of small-pox have occurred in Fall River, Salem, Holyoke, and Williamsburg, the sufferers being almost exclusively persons recently arrived from Canada. The comparative immunity of residents of Massachusetts from the ravages of small-pox is largely due to the rigid enforcement of the vaccination laws of the State. For example, no child is admitted to the public schools there without complete evidence of previous vaccination.

Sanitary laws of like tendency are believed to exist in Canada; but, from the recent occurrences, the conclusion is unavoidable that their enforcement is neglected, and that the subjects of the Dominion coming to this country to seek temporary employment are in a dangerously unprotected state. The subject cannot but be one of grave interest to the authorities of the Dominion, inasmuch as the Canadian communities must be at least as much exposed to the calamitous outbreak of small-pox as are the American communities visited by Canadian immigrants; and it behoves them to see that the Dominion laws are adequate for domestic protection, and strictly enforced. It may become necessary for this gov-

PREVALENT DISEASES AND CAUSES OF DISEASE.

ernment to consider the propriety of adopting measures of self-defence, such as the compulsory examination of Canadian immigrants at the frontier, or some equally inconvenient and restrictive step. Meanwhile it seems proper that I should make the subject known through you, and ask earnest attention thereto on the part of the Canadian Government.

I have the honor to be, with the highest consideration, sir,

Your obedient servant,

(Signed)

JAMES G. BLAINE.

REPLY OF THE CANADIAN GOVERNMENT.

WASHINGTON, Oct. 29, 1881.

SIR, — Referring to your note of the 26th of May last, complaining of the prevalence of small-pox amongst Canadians emigrating to the United States, I have the honor to inform you that Sir Edward Thornton brought your note to the notice of his Excellency the Governor General of Canada, inviting at the same time the attention of the Dominion Government to the matter.

His Excellency has now forwarded to me a copy of a report from the Honorable the Privy Council of Canada, replying to the observations made by you, from which it appears that, although small-pox does sometimes make its appearance in Canada as in other countries, and notably in parts of Europe at the present moment, still every precautionary measure possible is taken against the spread of the disease. Efforts are made to cause vaccination to be generally practised in Canada; and when among the Indian population in the Territories, vaccinators are occasionally sent by the Federal and local governments to enforce the practice in as far as possible.

The committee point out that small-pox is not unfrequently brought to Canada from the United Kingdom, from parts of the continent of Europe, and from the United States, notwithstanding the vaccination laws and regulations of those countries; and complaints, even this year, have occurred in the Province of Quebec, of small-pox brought there from the United States.

The committee, after due consideration of a report furnished to them by the Minister of Agriculture, is of opinion that the Dominion Government will be unable to do any thing in addition to the present precautionary measures taken to prevent the recurrence of cases of small-pox being sometimes conveyed to the United States, and *vice versa*.

I have the honor to be, with the highest consideration, sir,

Your obedient servant,

(Signed)

VICTOR DRUMMOND.

The Honble. JAMES G. BLAINE.

Notwithstanding the statement, contained in the above correspondence, upon the enforcement of the Canadian vaccina-

PREVALENT DISEASES AND CAUSES OF DISEASE.

tion laws, it is still a fact, that, of the large number of inhabitants of the Dominion of Canada resident in this State, a much larger proportion is unvaccinated than of any other nationality. The records of the Department of Out-door Poor prove this fact beyond any question.

Sect. 6 of chap. 291 of Acts of 1879 gives this Board co-ordinate powers as a board of health in every place where small-pox or other contagious or infectious disease dangerous to the public health may exist. To enable the Board to act promptly, when necessary, in case of small-pox, the following notice was sent to all cities and towns of the State:—

STATE BOARD OF HEALTH, LUNACY, AND CHARITY,
DEPARTMENT OF HEALTH, STATE HOUSE,
BOSTON, 20th June, 1881.

DEAR SIR, — The State Board of Health, Lunacy, and Charity, at its regular monthly meeting, June 4, 1881, passed the following vote: "*Voted*, That the Health Officer of this Board is instructed to issue a circular to the selectmen or boards of health of each town in the Commonwealth, requesting them to report by telegraph to him the first appearance of any case of small-pox in the town. This notice is asked of you in order that the State Board of Health, Lunacy, and Charity may be enabled to effectually carry out the provisions of the 6th section of chap. 291 of Acts of 1879; viz., In case of small-pox, or other contagious or infectious diseases dangerous to the public health, existing or likely to exist in any place within the State, said Board shall investigate the same and the means of preventing the spread thereof; and shall consult thereon with the local authorities, and shall have co-ordinate powers as a board of health in every place, with the board of health or health officer thereof, and with the mayor and aldermen or the selectmen when no such board or officer exists in such place."

Very respectfully yours,

(Signed)

H. P. WALCOTT, M.D.,
Health Officer.

By means of the timely notice thus gained, the Board, through the agency of the Superintendent of Out-door Poor, is able at once promptly to inspect the condition of inhabitants in exposed towns as to previous vaccination, and, if necessary, to undertake a general vaccination at a small expense to the State; thus saving very considerable sums of money to the treasury, which would otherwise be drawn upon

ACTUAL PROCEEDINGS IN SMALL-POX.

to meet the burden of supporting those who would have become dependent upon the public by reason of this disease. As the towns, however, have not, in all cases of the appearance of small-pox, given the notice thus asked for, and in view of the great importance, to the health of the community and to the treasury of the State, of immediate action at the first breaking-out of this disease, it is suggested that towns and cities be required by law to comply with this reasonable request, under penalty of forfeiting any claim they may subsequently have to reimbursement for care of paupers without settlement, and sick with small-pox, in case of non-compliance.

7. Actual Proceedings in Small-Pox Cases.

No appropriation for small-pox cases was made in the year 1880, the unexpended balances of previous years being sufficient; but in 1881 the disease increased, and \$6,000 was appropriated. The whole number of notices in 1881 was 90, covering 110 State poor, who were duly visited. They were in Boston, Holyoke, Fall River, New Bedford, Adams, Cheshire, Richmond, Montague, Northampton, and a few other towns. The cost of the patients will probably be to the State above \$5,000; to the cities and towns more than twice this. The constant vigilance of the Health Officer and the Superintendent of Out-door Poor has been exerted to prevent the spread of the disease; and it has been checked in every place where it appeared before it had extended far, or caused many deaths. The presence of this disease in Massachusetts is due to three distinct and very evident causes,—importation by immigrants at our ports, paper rags, and the Canadian immigration. The last-named cause appears to furnish most cases, but the second occasions the most virulent form of the disease. Since its destructive visit in 1872-73, when several thousands were attacked and more than 1,000 persons died, it has been very light; probably because the general and thorough vaccination and revaccination then effected left it little material to work upon. But the large immigration and numerous births of the last eight years have renewed the supply of non-vaccinated persons, and there is danger of another general outbreak should vigilance be relaxed. During the

ACTUAL PROCEEDINGS IN SMALL-POX.

past year we know of its appearance in 20 cities and towns, having a population of more than 550,000; but in one town only did it make any serious headway, and even there it was checked after 50 or 60 people had been attacked.

The admirable arrangements of the Board of Health in Boston protect our chief seaport, while the same Board secludes, vaccinates, and disinfects so promptly and effectually as to leave the disease little foothold by land. In cities like Holyoke, and towns where the paper-manufacture is carried on, the people are most exposed. The chief risk occurs in places where there are paper-mills, or where the Canadian element abounds. The movement hither of infected persons from the Dominion must always be expected till its authorities take the matter in hand, and enforce vaccination, especially among the French-speaking population. The present situation is a constant menace to the New England States, and especially to Massachusetts. But the disease propagated from the paper-mills is within our own control, and our present experience is demonstrating the necessity of prompt and effective action. In our judgment the sum to be paid by the State for the cases originating from this source for the past six months will not fall short of \$5,000, and it may largely exceed that sum. As the operatives in these mills live in scattered villages, there is constant danger of the spread of contagion; and the disease now exists in Bernardston, carried from a paper-mill in Holyoke, in Deerfield carried by an operative from Turner's Falls, and in Northampton from the same source. It is suggested that a conference with the mill-owners might be of service, to devise some means of disinfecting their rags when the bales are opened, and to secure their unanimous pledge to give work to none who cannot show that themselves and their entire households have been thoroughly vaccinated. This latter precaution alone will materially reduce the risk. To show the present risk in many of the small towns of the interior, we would add that, in one locality, supposed to be quite well protected, the Board's officer found, within 80 rods of a house where there were two cases of small-pox, 130 persons who had never been vaccinated. Three days after, as the result of

SPECIAL WORK UNDER ACTS OF 1881.

concurrent action by this Board and the local Board of Health, not one could be found; and the whole cost of this vaccination did not exceed fifteen dollars.

SPECIAL WORK UNDER ACTS AND RESOLVES OF THE
LEGISLATURE OF 1881.

Among the laws and resolves of the Legislature for 1881 were three, which brought prominently to the attention of the Board the great importance of some well-considered protection of the water-supplies of the State, and of existing methods of sewage disposal. The first of these, contained in chap. 240, is an "Act concerning Alewife Brook and certain sewers in Cambridge and Somerville."

Alewife Brook now receives a large amount of sewage from the city of Cambridge, and is especially contaminated by the drainage from a large hog-slaughtering establishment in that part of Cambridge recently annexed from Belmont. This slaughter-house, close to the borders of Fresh Pond, the only water-supply of Cambridge, was built by permission of the authorities of the town of Belmont, and was under the supervision of this Board until 1881, when the following preamble and vote were passed:—

"Whereas the recent annexation of a portion of the town of Belmont to the city of Cambridge has removed the most important reason, want of jurisdiction, which induced that city to seek relief from this Board in the matter of the Niles slaughtering establishment, located near the border of Fresh Pond, and supposed to endanger the purity of its water-supply, be it therefore voted, that this Board dismiss the subject from further consideration."

The only feasible method at present of disposing of the waste liquids of this establishment is by direct drainage into this brook, and yet the stream is so seriously polluted as to be very offensive in its whole extent, and constitutes a not inconsiderable portion of the nuisance in Mystic River. The only plans of sewerage which have been suggested thus far, as reliefs to Alewife Brook, are a sewer to Charles River above Old Cambridge, or an entrance through Somerville's drainage system into the trunk sewer in East Cambridge, which dis-

SPECIAL WORK UNDER ACTS OF 1881.

charges at Craigie's Bridge, and was constructed by joint action of Somerville and Cambridge.

The objections to the first plan are for the present insurmountable. The Charles already needs relief, and is sure to become year by year more foul; for no system of intercepting sewers to relieve the river has as yet been adopted.

The Act above cited offered a certain, and for the present, sufficient outlet. It failed, however, to become a law, not having been accepted by the city of Somerville within the thirty days specified in sect. 16, though it had been accepted by Cambridge.

The next Act, chap. 303, is entitled "An Act to require the city of Boston to abate a nuisance in Mystic Lower Pond, for protecting the purity of the waters of said pond, and for the preservation of the public health, especially in the towns of Medford and Arlington."

In the first section the city of Boston is directed to cease emptying sewage, or waters, or substances containing polluting matters or properties into Mystic Lower Pond through its sewer, and is also directed to take up and remove so much of said sewer as extends into said pond; and so much, also, as is within two hundred feet of the border of the pond, within three months from the passage of the Act, but is allowed to discharge the water in the sewer, after proper purification, into Mystic Pond, provided it flows through an open drain, with a gravelly or sandy bottom, before entering it.

The second section, with which alone the Board is concerned, reads as follows:—

SECT. 2. The city of Boston is hereby directed to cause said Mystic Lower Pond to be cleansed of such impurities prejudicial to the public health as, in the judgment of the state board of health, lunacy, and charity, it shall have caused, and at such time and in such manner and extent as shall be approved by the state board of health, lunacy, and charity, and said city shall pay the expense incurred thereby; and should the said board deem the same to be necessary, and so decide, the city of Boston may erect a dam at the outlet of the Lower Mystic Pond, and may exclude tide-water from said pond, and may raise the height of the water in said pond, and may take land therefor; and any person suffering any damage shall have the right to have damages assessed therefor, as provided in section three of this act.

SPECIAL WORK UNDER ACTS OF 1881. — MYSTIC POND.

On June 18, the Board, accompanied by representatives of the towns in interest, visited the following places: The Loring tannery in Winchester; Russell Brook; the tannery of Messrs. Dow, Bishop, and Cummings, in Woburn; the glue factory in East Woburn; the dam and outlet of Mystic Lower Pond; the Mystic pumping station in Medford; and finally Alewife Brook at its outlet, and at its crossing under Arlington Avenue. On the conclusion of the inspection, the chairman of the Board ordered that a hearing should be held at the State House at ten o'clock A.M., June 22, 1881, for the further consideration of the abatement of the nuisance existing at Mystic Lower Pond. This hearing was held, and counsel representing the city of Boston asked permission for the city to erect a dam at the outlet of the pond. This was opposed by counsel representing the towns of Medford and Arlington. In the opinion of the Board, sufficient evidence to justify the erection of the dam was not submitted at this hearing; and, upon request of the complainants, and in order to give Boston time to carry out the provisions of the first section, with consent of all the parties, the further consideration of the whole subject was postponed for two months, unless otherwise ordered by the Board, or the chairman thereof. By request of the parties in interest, this later hearing was postponed until a decision should be reached in proceedings pending in behalf of the town of Medford against the city of Boston, *in banc*, in the Supreme Judicial Court. We learn that, quite recently, legal proceedings have been discontinued, and that Boston is commencing measures to purify the contents of the sewer; but no official notice of these facts has been given us. The Board has, however, requested the Harbor Commissioners to ascertain the amount of shoaling since their previous survey (in 1865), which would substantially determine the extent of sewage-accumulation within that time. They have kindly complied with this request, and the result indicates no very large amount of filth-deposit.

The Board, on Saturday, January 7, 1882, voted that the city of Boston and the towns of Arlington and Medford should be notified that a hearing will be held by this Board

PLAN OF DRAINAGE FOR MYSTIC VALLEY.

on Saturday, January 21, 1882, at eleven A.M., at the State House, on the matter of cleansing Mystic Lower Pond, in accordance with the provisions of the Statutes of 1881, above cited.

The remedy which will finally relieve the city of Boston from its present well-founded anxiety as to the protection of the Mystic water-supply from contamination, and secure the towns bordering upon Mystic Lake and Mystic River against offensive smells, — sure to come at some time from both lower lake and river, whether Boston brings a sewer here or not, — lies in a comprehensive system of drainage for the whole Mystic valley.

The legislative Committee on Public Health appended to one of its reports a bill, of which they say, that it is worthy, in their judgment, of consideration in connection with any plan to be hereafter submitted to the Legislature.

The bill provides for the creation and incorporation of a metropolitan health district, made up of nineteen cities and towns, organized for the purpose of constructing and maintaining a system of intercepting sewers, without powers of interference with the internal sewerage system of the towns composing the district. So far as the work of making a system of intercepting sewers is concerned, this district is to be regarded as a unit, with equal needs and, in proportion to the respective valuations of its parts, equal responsibilities.

The Legislature, recognizing the great importance of the subject thus presented, passed the following resolve : —

[Chap. 62.]

RESOLVE FOR A PLAN FOR THE DRAINAGE OF THE MYSTIC VALLEY
AND THE NEIGHBORHOOD OF THE CITY OF BOSTON.

Resolved, That the governor and council are hereby authorized and requested to examine and report in print to the next legislature a plan for the drainage of the Mystic valley, with an estimate of the cost thereof and a recommendation as to the methods of apportioning said cost. And they are further authorized, within their discretion, to include the Charles River valley and the immediate neighborhood of the city of Boston in their investigation regarding drainage, and in any plan or recommendation which they think it advisable to report for the action of the legislature. For these purposes they may incur such engineering or other expenses as they may deem necessary. — *Approved May 12, 1881.*

RESOLVE REGARDING THE SEWAGE OF WORCESTER.

The Governor and Council have referred the matter to a committee, consisting of E. S. Chesbrough, C.E., of Chicago, H. P. Walcott, M.D., C. F. Folsom, M.D., A. W. Boardman, Esq., and Dr. Azel Ames, jun. As the consideration of this report, in connection with one to be subsequently noticed, will bring more directly to public attention than ever before the rapidly increasing pollution of streams not used as sources of water-supply for domestic uses (but which, as in the case of the Blackstone at Millbury, are becoming too foul even for manufacturing purposes, and as objectionable to residents on their banks as open sewers would be), it is time to ask whether the State must not take one step more, and protect rivers not used for domestic water-supply, in the interests of the residents upon their banks, and of the manufacturers themselves. A comparison of the chemical analyses of waters of the Blackstone River made in 1881, with a large number made by the State Board of Health in 1875, reveals a very serious increase in the percentages of polluting matter. This deterioration shown in the waters of the Blackstone is undoubtedly also true of many other streams of Eastern Massachusetts. Complaints have for some years been made of the condition of the Nashua below Fitchburg, and of one stream at least which enters the Taunton River. The attention of the Legislature is therefore called to the Act of 1878 for the protection of streams and ponds used for domestic water-supply, with the suggestion that some protection might usefully be extended to streams, ponds, and tidal waters not used as sources of domestic water-supply.

The third resolve is as follows : —

[Chap. 67.]

RESOLVE REGARDING THE SEWAGE OF THE CITY OF WORCESTER.

Resolved, That the state board of health, lunacy, and charity is hereby authorized and directed to examine and consider the question of the disposition of the sewage of the city of Worcester, especially with a view to prevent the pollution of the Blackstone River and its tributaries, and report its conclusions in print to the next legislature, with recommendations as to a definite plan for the prevention of such pollution. For this purpose the board may employ such assistants and incur such engineering or other expenses as shall be approved by the governor and council. — *Approved May 12, 1881.*

CIRCULARS OF THE STATE BOARD.

The Board at once entered upon the investigation of this question, and, after due notice given to all the parties in interest, spent parts of two days, early in July, in Worcester, when a hearing was had, at which appeared the city of Worcester and the town of Millbury, represented by city and town officers, or committees duly appointed. One result of this hearing was, that the Board voted to request the city of Worcester and the town of Millbury to submit in writing such evidence of experts, as to methods of disposal of the Worcester sewage, as each municipality should deem proper, especially with a view to prevent the pollution of the Blackstone River and its tributaries. Another was, that Dr. C. F. Folsom of the National Board of Health, J. P. Davis,* C.E., of New York, and Dr. H. P. Walcott, Health Officer of this Board, were appointed a committee to consider the matter of the disposal of Worcester sewage, and report their conclusions to this Board. They have presented their report with plans and estimates of expense, which, together with the documents furnished by the town of Millbury, will be found in the special Sanitary Appendix. Our recommendations as to a definite plan for preventing the further pollution of the Blackstone River are given in Part Fifth.

The circulars of the State Board of Health relating to the prevention of disease are often asked for, and continue to be distributed. So many changes have taken place in the requirements for house-drainage, that this circular has been revised, with the assistance of E. S. Philbrick, C.E., and is printed in the special Sanitary Appendix, pp. 107-116.

* Not Dr. R. T. Davis, as erroneously printed on p. xx.

PART SECOND.—LUNACY.

PART SECOND.

LUNACY.

THE United States Census of 1880, when completed with respect to insanity, will show a larger number of the insane in Massachusetts than has ever before been reported ; but no more than this Board, from its inquiries in the past two years, has had reason to believe were resident in the State. The whole number, at any one date, cannot be exactly determined even now ; but by the preliminary census tables it exceeded 5,000 in June, 1880, and must now be somewhat greater. Table XIX. in the Appendix exhibits the number that has come to the official notice of this Board, in hospitals and asylums, during the year ending Oct. 1, 1881 ; and also gives by estimate, in a foot-note, the additional number in the city and town almshouses and prisons during the year. The number visited in almshouses was 585 ; but the whole number resident there during the year was more than 650, of whom it is estimated that 40 died. In the hospitals and asylums 4,350 different persons appeared in course of the year, of whom 297 died. Adding together the almshouse and the asylum cases, and excluding those who appeared in both lists, — nearly 100 in all, — we find the total to be 4,900 different persons ; and to these should be added, also, about 100 insane persons, supported by the public in prisons and in private families during the year. The aggregate of the insane who came under official notice, then, was about 5,000 ; and, of these, all but 110 had their domicile within the State. The *known* recoveries and deaths among these 5,000 persons did not exceed 650, although a few more than this, no doubt, recovered or died. More than 100 insane persons were re-

NUMBER AND INCREASE OF THE INSANE.

moved from the State during the year, and at least 50 came into the State in a condition of insanity, besides those who presented themselves as private patients in our hospitals and asylums. The net reduction in the number of the Massachusetts insane, therefore, was not far from 700 in the whole year, while the number of insane persons appearing for the first time was more than 900. These figures indicate a net increase of our insane, amounting to at least 200 in the year; and it is probable that they will necessarily accumulate to the extent at least of 200 annually for many years to come. This, as already remarked, is not in consequence of any noticeable increase of recent insanity, but because this disease is less curable than we have been willing to believe, until careful inquiries have shown us the painful facts. Table XXI. in the Appendix shows that of 440 patients discharged, either by recovery or death, in the last reported year, and who had never before been in any hospital, 215 died, while 225 recovered. Other statistics in this Report, and in the careful reports of the Massachusetts hospitals and asylums, show that, of these first recoveries, at least ten per cent, sooner or later, relapse into insanity, which ends in death; so that, of all *first admissions* to our hospitals at present, more than half die insane. This reduces the percentage of *possible* permanent recoveries below *fifty*; and it is the opinion of those who have investigated the question most accurately, that the permanent recoveries do not exceed 40 per cent. If this be so, and if we are to have a yearly admission of 1,000 new persons to our hospitals, 600 of them will be added to the list of the chronic insane, of whom no more than 400 will die in any ordinary year. By this calculation, which the facts seem to warrant, we reach in another way the conclusion that provision must somewhere be made in Massachusetts for a yearly addition of at least 200 to our chronic insane population, already numbering more than 4,000.

Assuming this to be so, — and it does not seem possible to doubt it, unless some means shall be found to establish more recoveries of the insane, — the question at once becomes important, How shall we provide for this constantly increasing multitude of the insane? The expedient of sending them

DUTY OF THE STATE.

all, curable and incurable alike, to costly hospitals, built upon the theory that most of them can be cured, is no longer practicable; for the whole community have come to see that the theory upon which these hospitals were built is not tenable. Moreover, it is found by experience that those patients who can be cured are unfavorably affected, in many cases, by the presence of this large and accumulating mass of chronic insanity in the very hospitals where recovery should be the main object. Hence the absolute necessity of further classification of the patients, and the expediency of providing for the practically incurable class, accommodations which will secure their comfort, without burdening the taxpayers with a cost that should be expended, if at all, on the restoration to the community of those who can be thus restored.

DUTY OF THE STATE.—HOSPITALS AND ASYLUMS.

It is true that of the 1,200 insane persons, more or less, who last year found their way into our hospitals and asylums, less than half were even nominally State patients. But in dealing with insanity the State has a duty which does not exist with regard to other forms of disease: it must assume the supervision of those patients whom it is not bound by law to support. For experience has proved that it is not wise or safe to leave the control of the insane to any authority less general than of the State; that the neglects and abuses, which inevitably attend this hopeless condition of our fellow-creatures, can only be effectively dealt with by State supervision, which, therefore, in Massachusetts, has long been extended to all classes of the insane,—the rich as well as the poor. Among the 5,000 insane persons who came under the notice of this Board in the official year ending Oct. 1, 1881, not less than 4,350 were in hospitals and asylums, which this Board is directed by law to supervise, and nearly or quite 3,800 were in hospitals and asylums, built and owned by the State, and supervised also by trustees appointed to represent the State.

These State hospitals are four in number,—at Worcester (opened in 1833), at Taunton (opened in 1854), at Northampton (opened in 1858), and at Danvers (opened in 1878);

COST OF THE STATE HOSPITALS.

and the cost of their construction up to the present time has been something more than \$4,200,000, of which about \$3,000,000 was expended between 1872 and 1878 at Worcester and Danvers. These two new hospitals now contain a little less than 1,250 patients, for whose reception and accommodation the State has incurred a construction cost of nearly \$2,500 each. The two hospitals at Taunton and Northampton now contain something more than 1,000 patients, at an estimated construction cost of \$1,200,000, or about \$1,200 for the reception and accommodation of each patient. The State asylums for the chronic insane are two in number, — at Tewksbury (opened in 1866), and at Worcester (opened in the old buildings of the Worcester Hospital in 1877). The construction cost of the Worcester Asylum is estimated at \$400,000 up to this time, having been accruing since 1831. The cost of the Tewksbury Asylum buildings has not much exceeded \$100,000; making a total for these two asylums of about \$500,000, for the reception and accommodation of about 675 patients, or something less than \$750 for each. The present number of patients in the two asylums is less than this, — 655; but they have a capacity for 675, and will be filled to that capacity, no doubt, during 1882. The total cost of the State hospitals and asylums for construction and equipment has been, by this estimate, about \$4,700,000 (certainly no less than this); and their convenient capacity cannot be estimated at more than 3,000. They now contain 2,913, and will probably reach the limit of 3,000 before the close of 1882.

Besides the six State hospitals and asylums named above, there are in the State three small asylums, essentially public in their character, — the McLean Asylum (the oldest in Massachusetts), the Boston Lunatic Hospital, and the Essex County Receptacle at Ipswich. The McLean Asylum (opened in 1818) is owned by a private corporation, existing for public purposes, — the Massachusetts General Hospital, — and has always had in its board of visitors official representatives of the State. At present these are the four State trustees in a board consisting of twelve. The Boston Lunatic Hospital (opened in 1839) is owned by the city of Bos-

CAPACITY AND COST OF THE HOSPITALS.

ton, and managed by the Directors for Public Institutions of that city. The Ipswich Receptacle is owned by Essex County, and is managed by the county commissioners. The cost of these three asylums for construction cannot be very closely calculated, but probably exceeds \$200,000 for the McLean Asylum, \$150,000 for the South Boston Asylum, and \$50,000 for the Ipswich Asylum, — in all, \$400,000. At present they contain about 390 patients, nearly all chronic cases, and about equally divided between private patients and paupers. The McLean Asylum contains no paupers; and its average weekly cost for each patient is about \$15. The Boston Lunatic Hospital contains about 160 paupers of the city, and its average weekly cost for each patient is about \$5. The Ipswich Receptacle contains about 50 paupers, whose average weekly cost is \$2.50; and 10 or 12 private patients, for whom \$3 a week is paid. The capacity of neither of these asylums is much beyond their present number, although at times they have contained in all some 450 patients. It is probable they may increase their present number to above 400 during the year 1882.

The strictly private asylums for the insane in Massachusetts are few and small, nor can the cost of their buildings readily be calculated. It probably has not exceeded \$100,000 for the reception and accommodation of about 70 patients. The present number is less than this, not much exceeding 45. It is doubtful if the full capacity of these asylums (estimated at 70) will be reached during 1882. All of them, and the three public asylums just mentioned, at Somerville, South Boston, and Ipswich, are under the supervision of this Board, and have been visited during the year by members of the Board, as well as by the Inspector of Charities, whose duty it is to inspect all the hospitals and asylums, and examine the commitment papers of their inmates.

Capacity and Results of the Hospitals.

Assuming the estimates of construction, cost, and convenient capacity above given to be correct, there is room in the whole *fifteen* hospitals and asylums, public and private, of Massachusetts, for about 3,470 insane patients, at a construc-

THE INSANE POOR OF THE STATE.

tion cost of about \$5,200,000, or an average of \$1,500 for the reception and accommodation of each patient. There are at present in these buildings 3,355 patients, the number having increased since the 1st of October, when there were about 3,290, as shown by Table XIX. in the Appendix. But, during the year covered by that table, there had been about 4,350 patients in these buildings for a longer or shorter period. And during the year 1882 it is likely that this aggregate will rise to 4,500, among whom it will not be reasonable to look for the recovery of more than 325 persons; and even of these recoveries, at least 25 will only be temporary. Practically, therefore, only one in 15 of these insane, under medical care, will make recoveries; while about the same number may be expected to die. The actual number of reported recoveries among 4,350 patients in the year ending Oct. 1, 1881, was but 307, while 297 died at the establishments, and several others during the year, after their discharge. The fact seems to be that more of the insane of Massachusetts die in each year, than recover. The number of *new* commitments of insane persons in Massachusetts in a year now exceeds 900, the whole number of commitments and transfers being about 1,500. But the recent *cases* of insanity appearing in the year do not much exceed 500; and the number of insane persons practically curable, at any one time, in the State, does not, probably, exceed 500; though there are perhaps 600 persons who would be set down by skilful physicians as having some prospect of recovery. These things should be taken into account in any future plans for the building of insane hospitals and asylums. And another thing should also be duly considered,—that, of more than 2,800 pauper patients now found in in our asylums, about 2,000 are city and town paupers, and less than 830 are State paupers. Table VII. in the Appendix shows these facts, and indicates how constant and rapid has been the growth of insanity among the city and town poor.

THE INSANE POOR OF THE STATE.

Considering the State poor alone, we find that the changes in the pauper settlement laws of late years have considerably

 THE INSANE POOR OF THE STATE.

diminished the number of insane persons who come permanently upon the State Treasury for support; and, were it not for the heavy tax which the construction of extravagantly built hospitals has imposed upon the State, the yearly cost of maintaining its own special insane would be little greater than it was ten years ago. During the past year 566 insane persons, nominally "State charges" (including recommitments), were committed to the several lunatic hospitals. Of the whole number (1,122) there supported, nominally as "State charges," during all or a portion of the year, 350 were found to have settlements in some town or city; while of those so supported by the State during a portion of the year, 123 were removed from our borders because their claim for support at the expense of this State—if any such claim was made—was not well founded.

The above-mentioned number of insane persons, nominally State paupers, were committed to the several lunatic hospitals during the year ending Sept. 30, 1881, as follows:—

To the Danvers Lunatic Hospital	298
Taunton Lunatic Hospital	143
Worcester Lunatic Hospital	85
Northampton Lunatic Hospital	40
Total	566

Besides these, a certain number were admitted as sane persons to the State Almshouse and State Workhouse who afterwards appeared to be insane, and were transferred to some asylum or hospital.

The 123 persons removed out of the State were sent as follows:—

From the Danvers Lunatic Hospital	62
Taunton Lunatic Hospital	22
Worcester Lunatic Hospital	14
Northampton Lunatic Hospital	11
Asylum for Insane, Tewksbury	14

In 15 cases the friends of State patients were prevailed on to remove and provide for them. An aggregate of 400 insane persons transferred to town or private account (275),

THE INSANE POOR OF THE STATE.

or removed by overseers or friends (125), were situated as follows: —

In the Danvers Lunatic Hospital	193
Taunton Lunatic Hospital	80
Worcester Lunatic Hospital	66
Northampton Lunatic Hospital	26
Chronic Asylum, Worcester	19
Asylum for Insane, Tewksbury	16

The general condition of the State establishments above named will appear below.

STATE ESTABLISHMENTS.

PUBLIC AND PRIVATE HOSPITALS AND
ASYLUMS.

I. STATE ESTABLISHMENTS.

1. *The Worcester Lunatic Hospital.*

Trustees. — JOHN D. WASHBURN, Worcester; Rev. JOHN F. MOORS, Greenfield; ROBERT W. HOOPER, M.D., Boston; RUFUS D. WOODS, Enfield; THOMAS H. GAGE, M.D., Worcester.

Superintendent. — Dr. JOHN G. PARK.

As has been explained in previous reports, this hospital includes two distinct establishments, — the new hospital, built between 1872 and 1877, and opened in the latter year, and the Chronic Asylum, which was established by law in 1877, in the buildings of the old Worcester Hospital, first opened in 1833. In respect to admissions and discharges, the new hospital continues the register which was kept at the old hospital up to October, 1877; while the Chronic Asylum has a new register of its own, containing only the chronic pauper patients received into the asylum under the Act of 1877. These asylum patients are all transferred by this Board from other hospitals and asylums; and it is a rare exception when recent cases are found among them: indeed, this seldom happens except in cases of transfer from the Tewksbury Asylum. At the new Worcester Hospital most of the patients are committed by the courts, though transfers are also made to it from the prisons or the other hospitals, chiefly from Danvers. Without such transfers the number would steadily fall away by discharges and deaths; while at Taunton and Northampton the number of patients is kept up by the regular court commitments. In the new hospital the whole num-

THE WORCESTER LUNATIC HOSPITAL.

ber of patients has been 770 (the average number about 570), of whom something less than a fifth part were reported as private patients. There are usually more private patients at Worcester than in the two hospitals at Taunton and Northampton, and more than in the Danvers Hospital; but, should the practice continue of accumulating in this establishment the convict insane, and those who but for insanity could be convicted, the private patients might be expected to diminish.

The recoveries at the new Worcester Hospital were but 54, and the deaths 47, in a total of 770 persons. A table in the Appendix will show that at the Worcester Hospital, as well as at Taunton and Northampton, the number of recoveries among patients for the first time admitted is less than the number of deaths; so that the probability of recovery upon first admission would seem to be less than the probability of death. The report of Dr. Park, showing the number of re-admissions and repeated recoveries in the Worcester Hospital for nearly fifty years, is a statistical work of great value, though tending to prove, as most recent researches do, that insanity is far less curable than was formerly supposed. It appears, also, that such recoveries as do in fact take place are almost wholly among patients affected with certain special forms of insanity, particularly mania, acute melancholia, and alcoholic insanity; while in other forms of the disease, such as epilepsy, paresis, and dementia, recoveries seldom occur. This is not peculiar to any one hospital, but characteristic of the disease, as will appear by Table XXII. in the Appendix.

The water-supply of the new hospital has been sufficient during the past year, and the means of protecting the buildings from fire, by conducting the water around the outside of the buildings, with well-placed hydrants, have been greatly improved at a cost of \$7,314. The sum of \$10,827 has also been expended in finishing, furnishing, and painting wards in the upper story of the hospital, for an additional number of patients; and other construction expenses have been incurred to the amount of \$1,625. The total of these construction expenses (\$19,766) has been paid from the large surplus of the new hospital, which has thereby been somewhat dimin-

THE WORCESTER CHRONIC ASYLUM.

ished, but by no means to the extent of these construction expenses. The difference in the surplus, as reported in the two years 1880 and 1881, is not quite \$13,000,—a fact which shows that the current income of the new hospital is now more than sufficient for its current expenses. There is no reason to suppose that the extraordinary expenditure will need to be so large hereafter, as it has been during the past few years, and therefore the surplus of the new hospital at Worcester may be expected hereafter to increase rather than diminish. It stood on the 1st of October, 1881, including the invested fund for the benefit of the library (\$5,621.84), at \$41,984.23, of which \$14,586 was in cash, and \$30,406 in bills due for the board of patients; the liabilities of the hospital at the same time being \$8,629. The unsettled accounts of Boston and several other cities and towns, which have made a portion of the Worcester surplus unavailable for a year or two past, have now been nearly all settled; and there remains little charged for the board of patients, which cannot easily be collected.

The surplus of the other branch of the Worcester Hospital, the Chronic Asylum, has slightly increased during the year ending Oct. 1, 1881, from \$15,667 to \$15,944, notwithstanding an outlay for construction and extraordinary repairs during the year of about \$7,000. The combined surplus of the two branches of the hospital, exclusive of the vested funds, was, on the 1st of October, 1881, about \$52,000, of which more than \$20,000 was in cash; and this surplus is not likely to be much diminished for some years to come.

2. *The Worcester Chronic Asylum.*

Superintendent. — Dr. H. N. QUINBY.

Unlike the other branch of the Worcester Hospital, this asylum has not increased its number of patients during the past year, its whole number in 1881 having been but 401, against 413 in 1880. The average number in 1881 has been 362, against 363½ in 1880; and the average weekly cost is slightly greater, though still below the rate paid for pauper patients, — \$3.25 per week. The large outlay for extraordi-

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nary repairs has put the buildings of the asylum in much better condition than when they were first visited by this Board in 1879, and the income of the asylum has been sufficient to make these improvements, without materially diminishing its surplus fund, which is now nearly \$16,000. Being exclusively an asylum for chronic patients of the pauper class, the grade of its inmates is permanently below that of the new hospital. It makes no recoveries, and has a high death-rate, because there is no other termination for the disease of its patients, in most cases, except death. The marked contrast recently existing between the death-rate at this asylum and at Tewksbury, where, also, the patients are all chronic cases, may be ascribed to the fact that the better lives are selected for transfer to Tewksbury from the State hospitals, while the worst lives accumulate in the Worcester Asylum. The general death-rate among the patients in our hospitals and asylums is remarkably low, although somewhat greater this year than last. If any change is to be made at the Worcester Asylum, it should be in the direction of better food and care for its patients; for in a chronic asylum care needs to be taken that the hopeless character of the disease in most of the patients does not insensibly affect the standard of treatment.

3. *The Taunton Lunatic Hospital.*

Trustees. — WILLIAM C. LOVERING, Taunton; SIMEON BORDEN, Fall River; LE BARON RUSSELL, M.D., Boston; SAMUEL L. CROCKER, Taunton; GEORGE HOWLAND, jun., New Bedford.

Superintendent. — Dr. J. P. BROWN.

The large addition in the rear of the administration building at Taunton, although not yet completed, will be so far advanced before the Legislature meets, that some portion of the new structure can be used early in the year. The appropriation for this building (\$25,000) will be insufficient to complete it; but, on the other hand, its cost will be considerably less than the original estimate of the Trustees (\$30,000). The present estimate for the whole work is \$27,500, a sum midway between that asked for and that appropriated by the

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Legislature of 1881. The money has been judiciously expended thus far under the immediate oversight of the Superintendent, Dr. Brown, and the result will be a great addition to the convenience of carrying on the hospital. When completed, it will be the last step in the long process of enlarging and reconstructing the Taunton Hospital; the general result of which has been to make the old buildings nearly as good for ordinary purposes as the modern-built hospitals of the State, and at a cost very much less for construction than has been paid for the new hospitals at Worcester and Danvers. Probably the whole construction cost at Taunton does not yet exceed \$650,000 for buildings which have a convenient capacity to receive 550 patients; while the actual cost of construction at Worcester exceeds \$1,250,000 for 650 patients, and at Danvers will not fall short of \$1,750,000 for 600 patients. A great defect at Taunton, which does not exist at Worcester or Danvers, is the lack of land enough on which to employ the large number of male patients. It is proposed by the Trustees to increase the hospital estate by the purchase of a few acres adjoining, in the rear of the hospital. But this purchase, if made, will add little to the capacity of the farm for production, which is less than that of any other hospital farm belonging to the State.

The whole number of patients in the Taunton Hospital during the year ending Oct. 1, 1881, was 813; the average number, 564; the average weekly cost, about \$3.50. Here, as at the Worcester and Northampton Hospitals, the income from patients is quite sufficient to pay the ordinary current expenses of the hospital; and any diminution in the hospital surplus, such as has taken place at Taunton during the last two years, has resulted from extraordinary repairs and new construction. The reported surplus at Taunton on the 1st of October was \$16,219; a year previous it was \$17,325; and on the 1st of October, 1879, it was \$24,949, showing a decrease of the surplus, in two years, of \$8,370. But during these two years there was expended for construction and extraordinary repairs at Taunton not less than \$25,000, which was mainly taken from the current income and surplus funds of the hospital. Had this extraordinary outlay not been

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made, or had it been met by a special appropriation from the State Treasury, as in the case of the Danvers Hospital, the Taunton surplus, instead of diminishing by \$8,000, would have increased by \$15,000 within the past two years. This fact is mentioned here, not by way of criticism, but for the sake of showing that the current income of this hospital has been sufficient for its current expenses, notwithstanding the large diminution of its surplus.

Of the 813 different patients admitted at Taunton, during the year which this report covers, less than 200 were cases of recent insanity; and only 57 recoveries were made, while the number of deaths was 54. The commitments were more numerous than in 1880, and a greater proportion of those committed appeared to be recent cases of insanity, and therefore more likely to recover. In fact, the reported recoveries increased about 15 per cent over the number reported in 1880; but this seems to have been because of the commitment of recent cases from Boston, such as had gone almost exclusively to Danvers in 1880. The skill and pains of the medical officers at Taunton, as at the other State hospitals, can seldom be rewarded with permanent recoveries, so long as the great mass of the patients are chronic cases, practically incurable. There are some influences at Taunton less favorable to recovery than at Worcester, such as the lack of out-door employment for men, and the large size of the wards, in which the patients generally appear more noisy than at the other hospitals. The reconstruction at Taunton has in some degree removed these disadvantages, but not wholly. As was remarked in the last report of this Board, Dr. Brown has for some time been diminishing the amount of restraint and seclusion at Taunton, and with favorable results. He has also given the women more employment, and has introduced sewing in the wards more than formerly. In all respects the effort at this hospital is for improvement, and much has been accomplished under circumstances that some years ago appeared unpromising.

THE NORTHAMPTON LUNATIC HOSPITAL.

4. *The Northampton Lunatic Hospital.*

Trustees. — L. D. JAMES, Williamsburg; WILLIAM GAYLORD, Northampton; SILAS M. SMITH, Northampton; ADAMS C. DEANE, M.D., Greenfield; HENRY W. TAFT, Pittsfield.

Superintendent. — Dr. PLINY EARLE.

In accordance with a vote of the Board, passed early in the present year, the protection of this hospital from fire has been made more complete by certain changes in its internal structure. In other respects the buildings remain as they were. The farm, which is now the largest of all the State farms, improves from year to year, and its total production is much greater than ten years ago. This large amount of farm produce, including fruit and vegetables for the table, not only adds much to the variety of diet of the patients, but is also one main cause of the low weekly cost at this hospital. The farm is cultivated very largely by the labor of the patients, who are more generally employed at Northampton than has been customary in our State hospitals. The other hospitals, however, are approaching nearer to the standard of Northampton in this respect. The finances of the Northampton Hospital have been steadily and successfully managed during the whole period of Dr. Earle's connection with it: and the hospital surplus, although constantly drawn upon for purchase of land, improvements, and extraordinary repairs, still increases, and now amounts to \$30,886, of which \$15,205 is cash on hand; while the liabilities on the 1st of October were less than those of any other hospital or asylum belonging to the State, — viz., \$5,711. Ten years ago, on the 1st of October, 1871, the Northampton surplus was \$20,868, of which \$14,793 was cash on hand. There was, therefore, an increase of what may properly be called the cash surplus of about \$10,000 in the ten years, or an average of \$1,000 a year; while in the mean time the area of the farm has been increased from 195 acres to 340, and the total valuation of the establishment from \$303,684 to \$374,920. This gain in valuation, amounting to \$71,226 in ten years, represents a real increase in the worth of the property, and an outlay of money considerably greater than \$71,000: so that it is prob-

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able that the Northampton Hospital, in this period of ten years, has saved from its earnings, and applied to the improvement of its establishment in one way and another, nearly \$100,000. The period in question covers that of the highest and lowest prices, and all the fluctuations of the markets during the time of financial depression, preceded and followed by prosperity. The price of board fixed by the State has, of late years, always been found sufficient at the Northampton Hospital, not only to pay its current expenses, but to afford the savings out of which the above-mentioned improvements have been made. A financial record so peculiar, and in some respects so remarkable, seems to deserve notice in this Report.

The whole number of patients at the Northampton Hospital during the year ending Oct. 1, 1881, was 561; the average number, 452. The number remaining on the 1st of October, 1881, was 463, or 17 more than at the beginning of the year. This gain in the hospital population took place, notwithstanding the number of discharges was about the same as usual,—among them a considerable number of removals of chronic patients to the Springfield Almshouse,—and without many transfers from the other State hospitals. This fact shows that the commitments of the insane in the western counties are now sufficient to keep the Northampton Hospital not only full, but crowded; and it will soon be necessary either to make transfers to other asylums, or to enlarge the buildings at Northampton.

As usual, the recoveries and the deaths at Northampton have been few,—20 of the former, and 26 deaths. The proportion of chronic cases in this hospital is somewhat greater than that at Worcester or Taunton, and considerably greater than at Danvers, which receives more recent cases than any other State hospital. In cases susceptible of recovery it apparently takes places as frequently at Northampton as elsewhere; and there have been, during the year, several marked instances of this kind. In one of these, the patient, after recovery, thought fit to publish a long statement reflecting on the treatment he had received at Northampton; but, when this statement was examined by the Board, there appeared no foundation for injurious reflections, but much reason for

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gratitude on the patient's part. Instances of this kind occur in all hospitals; and it is too much to expect that all the patients, even when recovered, shall retain a correct recollection of what took place during the period of their insanity. We have seen no reason to doubt that the treatment of patients at Northampton has been kind and judicious. The commitment papers under the law of 1879, which at first were faulty in some cases, have much improved; and they generally show a careful examination by the committing magistrate into the circumstances of each case. This was particularly true in the commitment of a patient from Hampden County by the probate judge of that county, which has also been made the subject of published complaint.

5. *The Danvers Lunatic Hospital.*

Trustees. — JAMES STURGIS, Boston; DANIEL S. RICHARDSON, Lowell; CHARLES P. PRESTON, Danvers; SAMUEL W. HOPKINSON, Bradford; CHARLES F. FOLSOM, M D., Boston.

Superintendent. — Dr. WILLIAM B. GOLDSMITH.

The medical organization of this hospital, which during its first two years was open to severe censure, has been radically changed since the summer of 1880, and is now in a satisfactory state. About six months after the discharge of Dr. May, the first Superintendent, for sufficient cause, Dr. Goldsmith, the present Superintendent, took charge March 1, 1881, and has been efficiently seconded by his principal assistants, Dr. Henry R. Stedman and Dr. Julia Carey. This is the only State hospital in which a woman has any medical charge of the patients of her own sex, and the experience of this hospital seems to prove the advantages of such an arrangement. Danvers is also the only hospital which has a board of consulting physicians, who visit it by turns monthly. This board, consisting of twelve skilful physicians, was appointed by the Trustees early in the year 1881. They serve without compensation, and do not spend much time in the wards, but are consulted by the Superintendent in certain cases, and take notice of the medical condition of the hospital. The medical records at Danvers, which have always been quite full, have been further improved by the

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present Superintendent, and will be found very useful in making statistical or other inquiries concerning insanity. This hospital also has a special pathologist, whose investigations, though not very frequent, may be considered useful.

The increased cost of carrying on the Danvers Hospital, as compared with the other State hospitals, has been as noticeable in 1881 as ever before; and, although some reductions in expenditure can doubtless be made, it does not seem probable that the average weekly expenditure for each patient can ever be brought so low as at Worcester and Taunton, still less at Northampton. This is not mainly because the patients at Danvers are in a more recent and violent condition of insanity than at the other hospitals, but because the construction of the buildings is such as to make economy in management difficult. The total expenditure at Danvers for all ordinary purposes during the year ending Oct. 1, 1881, was nearly \$144,000, as reported; while the extraordinary expenses paid from special appropriations were \$13,417. This is nearly \$35,000 greater than the ordinary expenditure at the new Worcester Hospital, and nearly \$40,000 greater than at Taunton, although the difference in the average number of patients at these three hospitals was not very great. At the Northampton Hospital, with an average number of patients about three-fourths as large as at Danvers, the ordinary expenditure reported is less than \$79,000, or but little more than half as great as at Danvers. The deficiency between income and expenses at Danvers during the calendar year 1881 will be more than \$20,000; while the deficiency appropriation for this year, under the name of "maintenance," is only \$15,000.

The whole number of patients at Danvers during the year was 1,088; the average number, $614\frac{1}{2}$. The number remaining on the 1st of October, 1881, was 626, of whom 296 were men and 330 women. This preponderance of women shows itself constantly at Danvers, as at most of the hospitals, and is due in part to the commitments from Boston and other cities which have more women than men in their population. Of the admission *cases* at Danvers (497 in all, but not all representing different *persons*), 271, or 54 per cent were women;

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while only 226, or a little more than 45 per cent, were men. The reported recoveries at Danvers were 124; the deaths, 94; but only 119 of these recoveries were upon first admissions, while 89 of the deaths were upon first admissions. The deaths are more and the recoveries less than in 1880; and the tendency at Danvers, as in the older hospitals, is to bring the recoveries nearly to an equality with the deaths. In the five hospitals besides Danvers, which report their statistics in Table XXI. of the Appendix, the recoveries upon first admissions during a year were only 106; while the deaths in the same hospitals were 126 upon first admissions. The statistics of the Danvers Hospital, though not yet so valuable by long lapse of time, or by exact computation as those of the Worcester or Northampton Hospitals, are yet worthy of study by reason of the large number of patients represented in the tables. This hospital, in fact, receives a greater number of patients in a year from the general community than any other in New England, and perhaps as many as any hospital for the insane in the United States.

6. *The Tewksbury Asylum.*

This establishment, which is a branch or department of the State Almshouse, and was first opened in 1866, is now filled to its convenient capacity, and has contained more patients during 1881 than in the year preceding. Nearly three-fourths of its patients are women, and nearly all of them have been transferred to the asylum from the State hospitals. Occasionally, however, an inmate of the State Almshouse admitted there as sane is found to be insane, and transferred to the asylum; and there has been a small number of such insane persons residing at the almshouse, and some of them in the asylum buildings, who were in December, 1881, declared insane and entered on the asylum register. The buildings at Tewksbury are wholly different in their arrangements from those of the State hospitals and asylums, containing large dormitories and day-rooms in which a great number of the insane can be cared for by a few attendants. The patients at Tewksbury are no longer all State paupers, a considerable number for whom city settlements have been

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found being boarded in this asylum at the expense of their place of settlement. They are generally more robust and healthy than the patients in the Chronic Asylum at Worcester, but belong to the same general class; and this fact, together with care in their treatment, explains the small number of deaths among them. Indeed, the death-rate of the insane is lower this year at the Tewksbury Asylum than at any of the hospitals and asylums of Massachusetts. This low death-rate is in marked contrast with that which prevailed among the insane at Tewksbury in 1875 and the years preceding, before the medical supervision of the asylum inmates was well organized. In 1875 there occurred 58 deaths among 410 insane patients at Tewksbury; in 1876, when the medical staff was re-organized, there were but 38 deaths among 365 insane persons; in 1877 the deaths fell to 20, and in 1878 to 25, among respectively 338 and 318 insane inmates of the asylum; in 1879 (the medical care becoming better year by year) there were but 16 deaths among 256 insane inmates; in 1880, but 8 deaths among 266 insane inmates; and now, in 1881, but 6 deaths among 305 patients. This year, in the two establishments with the lowest death-rate, — the Northampton Hospital and the Tewksbury Asylum, — there occurred in all but 32 deaths among 865 patients; while at the Worcester Hospital and Asylum there were 71 deaths among 1,170 patients, and at Danvers, 94 deaths among 1,088 patients. The death-rate at Danvers was therefore nearly treble the aggregate at Northampton and Tewksbury, chiefly for the reason that there were so many more cases of recent insanity at Danvers.

It is probable, if the whole number of persons at Tewksbury during the year who were more or less insane should be reckoned, with all the deaths in this class, that the number of insane persons, instead of 305, would rise to 330, among whom there have been 8 deaths. This would make a death-rate a little higher than that just named, but still below the mortality of any other hospital or asylum.

The cost of maintaining the insane persons at Tewksbury is considerably greater than that of the other inmates of the almshouse, and has probably exceeded \$2.25 a week; the

OTHER PUBLIC ASYLUMS FOR THE INSANE.

average cost of the other inmates at Tewksbury being perhaps \$1.75 a week. Much of the labor of the whole establishment is still performed, as in previous years, by the able-bodied insane; and it is with some view to their capacity for labor that the transfers from the hospitals to Tewksbury are made. The labor performed is on the farm and about the buildings of the establishment, and it does something to reduce the cost of all the persons supported at Tewksbury. Mechanical restraint among the Tewksbury insane is very rare, usually not more than one per cent of the patients being found under restraint or in seclusion. Patients who need restraint after trial of a few weeks are generally sent to some of the hospitals.

Other Public Asylums for the Insane.

The above-named six establishments — two at Worcester, and one each at Taunton, Northampton, Danvers, and Tewksbury — are all which the State maintains, and in which State patients are to be found. They contain at the present time less than 860 State patients, the number having somewhat increased since the 1st of October (when there were but 805); but they also contain pauper patients of the cities and towns to the number of above 1,750, and a little more than 300 private patients. Of the patients nominally supported by the cities and towns, not less than 150 are wholly or partly paid for from their own property or that of their friends; so that practically the number of private patients in the State hospitals and asylums may exceed 450. The whole number of patients in these six establishments on the 1st of October was 2,850, and is now something more than 2,910; that is to say, they contain nearly nine-tenths of all the insane persons to be found in hospitals and asylums in Massachusetts. There are three other asylums which may be called public, although one of them, the McLean Asylum, is owned by a chartered corporation, and will therefore be spoken of among the private asylums. The other two are municipal asylums, both originally managed by county officers, but one of them being now the city lunatic hospital of Boston. These three public asylums contained, on the 1st of

MUNICIPAL AND PRIVATE ASYLUMS.

October, not quite 390 patients, and now something more than that number.

II. MUNICIPAL AND PRIVATE ASYLUMS.

7. *The Boston Hospital*; and, 8. *The Ipswich Receptacle*.

These two establishments are all that remain of the "county receptacles" authorized by law for the chronic and dangerous insane about forty-five years ago, when many insane persons were kept in the prisons for restraint. There have been since that time only three such receptacles, — in Suffolk, Essex, and Middlesex. The first became in 1839 the Boston Lunatic Hospital, standing beside the House of Correction at South Boston; the second still continues in the western wing of the Ipswich House of Correction; the third was long since abandoned; and in fact the occasion for prison receptacles of this kind long since passed away. The Ipswich Receptacle is an old-fashioned, ill-arranged, pauper asylum, in which are also supported a few private patients, whose friends cannot afford to pay hospital prices. Its patients numbered 61 at the beginning of the year, 65 during the year, and 58 at its close. There were 2 recoveries and 4 deaths; 46 of those remaining are town and city patients from Essex County, and 12 are private patients. The average number is smaller than formerly; the standard of treatment hardly so good as at the State hospitals.

The patients in the Boston Lunatic Hospital have seldom exceeded 250, and are not likely to reach that number in the present building; they were 178 on the 1st of October 1881. The average for the past year is reported as 161. It began the year with 162 patients, and, in consequence of increased commitments, had 244 during the year, closing with 178 patients. The recoveries were 19, — more than for some years past; but there was a greater number of deaths, as usual, viz., 21. In a period of ten years the deaths at this hospital far exceed the recoveries. Out of a total of some 658 patients, from 1870 to 1880 inclusive, 272 died, while only 185 recovered; some of the latter more than once. The death-rate at this hospital, for some reason, is unusually high, though smaller this year than at some times. No State pa-

PRIVATE ASYLUMS.

tients are now maintained there, although at one time (about twenty-five years ago, before the opening of the Northampton Hospital) about 100 State patients were kept at South Boston. Of those remaining at the end of the year (Oct. 1, 1881), nearly all were residents of Boston and city patients; but 24 were supported by their friends. The hospital buildings are old, not susceptible of much improvement, and neither very capacious nor convenient; but they afford a comfortable home to the present patients, and have been improved during the past year, since the appointment of Dr. Theodore W. Fisher as Superintendent in January, 1881. This hospital receives more "emergency cases" than any other; and the long acquaintance of Dr. Fisher with the cases of insanity arising in Boston makes him specially fitted to decide what should be done with such cases. His medical records are full and precise beyond what has been customary in our hospitals; but in this respect his example is worthy of imitation. The average cost of patients here is greater than in any of the State hospitals, by reason of the small number; being reported for the last official year at \$5.31 per week, and a net cost to the city of Boston of \$4.84 per week. In round numbers it may be called \$5, or about fifty cents a week greater than the cost at Danvers.

Other cities besides Boston are purposing to establish asylums for their insane poor, particularly Lowell and Lawrence; and such asylums, well built and well managed, would relieve the State hospitals from the pressure of patients to some extent.

PRIVATE ASYLUMS.

The private asylums, including the oldest at Somerville, which in one sense is a public asylum, are the following, naming them in the order of their opening:—

9. The McLean Asylum at Somerville (a branch of the Massachusetts General Hospital), opened in 1818.

10. Dr. Thompson's Private Asylum ("Shady Lawn") at Northampton, 1874.

11. Dr. Bemis's Private Asylum ("Herbert Hall") at Worcester, 1874.

12. Dr. Meade's Private Asylum at Roxbury, 1875.

PRIVATE ASYLUMS.

13. Dr. Russell's "Family Home" at Winchendon, 1879.

14. Dr. Channing's Private Asylum at Brookline, 1879.

15. The Cutter Retreat at Pepperell, 1879.

The date given for these asylums is not in all cases that of opening them, but of their coming to the official notice of the State authorities. For example, the Cutter Retreat has been in existence for thirty or forty years, and has at times received many more patients than at present; but it was not put under official visitation until July 1, 1879. The same may be true of some others; for private asylums have only come under visitation since 1874, when the law was passed requiring them to be licensed. This law, as it stands on the Public Statutes (chap. 87), is as follows:—

SECT. 53. The governor and council may license any suitable person to establish and keep an asylum or private house for the reception and treatment of insane persons, and may at any time revoke such license. And such asylum or private house shall be subject to visitation by the governor and council, or any committee thereof, and by the judge of the probate court of the county wherein the same is situated.

SECT. 54. Whoever establishes or keeps such an asylum or private house without a license, unless otherwise authorized by law, shall forfeit a sum not exceeding five hundred dollars.

In England the reception of insane patients at private asylums has been much more common, and for a much longer period than here; and the system there pursued has often brought private asylums into disfavor. Even now, though they are thought to have improved, the presumption seems to be rather against them in England, and still more in Scotland. But, from the brief experience we have had in Massachusetts, private asylums cannot be regarded with such distrust, but are a convenient auxiliary to the public asylums and hospitals. Since 1874 they have increased in number; yet the six mentioned in the above list now contain in all but about 50 patients, or less altogether than the smallest of the public asylums. The few patients living in these asylums do not all belong in Massachusetts; indeed, nearly half of them are from other States. They generally come from wealthy families, pay high prices, live as members of the physician's family, and have more attendance than patients in the public

THE McLEAN ASYLUM.

hospitals. Little restraint is employed, and not all the present patients have been committed by a magistrate, so that the use of restraint might result in removal of the patients. Even when regularly committed, the patients in these asylums are not often of a class to need more restraint than the attendants can furnish.

At the McLean Asylum the number of patients has lately been diminished by the greater cheapness of the board furnished to private patients in the new hospitals at Danvers and Worcester, and by the increase of admissions to the strictly private asylums receiving patients for high prices. There were at Somerville, in the beginning of the past year, 163. The whole number during the year was 219 (46 of whom came from other States); the smallest number during the year was 143; the number remaining Sept. 30, 1881, was 153, and the average number, 158. None of the patients here were supported either by the State or by the cities and towns, but several by the charitable funds of the asylum. Here, as in the hospitals and asylums generally, the women outnumber the men, and the chronic cases far exceed the recent and curable cases; the recoveries at the McLean Asylum being only 18, while the deaths were 13. This is a large increase in the deaths over the preceding year; but then the number was unusually small.

It was supposed when the Act of 1881 (chap. 272, sect. 3), permitting voluntary commitment to the hospitals, was passed, that a considerable number of persons would take advantage of its provisions at the McLean Asylum; but such has not been the case. Indeed, only one voluntary commitment to this asylum has taken place, and that of a patient who had already been admitted and discharged at Somerville many times. It is quite likely that, as this law becomes known, more persons will seek admission to this and other hospitals under the section above mentioned, which now stands in the Public Statutes as sect. 26 of chap. 87. The provisions of the same chapter with regard to emergency cases will apparently seldom apply to this asylum. Such cases arise more frequently in Boston than anywhere else, and are generally sent to the Boston Lunatic Hospital,

LAWS OF COMMITMENT AND DISCHARGE.

whence they may go, upon a regular commitment, to other hospitals, or may remain regularly committed to South Boston.

THE LAWS OF COMMITMENT AND DISCHARGE.

The revision of the Statutes during 1881 has brought together within a convenient compass the many Acts accumulating during half a century with regard to the commitment, transfer, and discharge of the insane. The law of commitment, though long, is now quite simple, having been made so by the Act of 1879, chap. 195, and its amendments. The shorter law of discharge, on the contrary, remains in form very complicated, inasmuch as it grants to many magistrates and officials, by many distinct processes, the power of discharging patients from any hospital or asylum in the Commonwealth. In practical administration, however, the power of discharge is exercised almost wholly by the Boards of management (generally called Trustees) of these hospitals and asylums, and, in case of transfer and occasional discharge, by the Board of Health, Lunacy, and Charity. The laws regulating both commitment and discharge as they will stand in the Public Statutes, chap. 87, are as follows (sects. 1-56):—

Statutes regulating the Commitment and Discharge of Lunatics.

SECTION 1. The state board of health, lunacy, and charity shall act as commissioners of lunacy, with power to investigate the question of the insanity and condition of any person committed to any lunatic hospital or asylum, public or private, or restrained of his liberty by reason of alleged insanity, at any place within this commonwealth; and shall discharge any person so committed or restrained, if in its opinion such person is not insane, or can be cared for after such discharge without danger to others, and with benefit to himself.

The above section, which stands first in chap. 87, contains the general authority given to this Board over the subject of insanity, and the persons of the insane throughout the Commonwealth. It contains no express authority to commit persons; but, since the transfer of inmates from one establishment to another is virtually their commitment to the place which receives them, the general and special powers of trans-

COMMITMENTS TO HOSPITALS.

fer given in other sections and chapters make this Board also a tribunal for the commitment of patients as well as for their discharge. All insane persons admitted during the year to the chronic asylums at Worcester and at Tewksbury, and many of the admissions to the State hospitals, are commitments by this Board under its powers of transfer. These are persons, however, whose insanity has been definitely determined by long observation, and generally by the process of some court. New commitments and most of the commitments, other than transfers to the four State hospitals, the two municipal asylums, and the corporate and private asylums, are made by the justices of the probate, municipal, police, and district courts in the Commonwealth, about sixty in number; but mainly by the probate judges of Suffolk, Middlesex, Essex, and Worcester Counties, and by the municipal and district judges of Boston, Worcester, Lowell, and the other cities of Massachusetts. The law under which these judges act is as follows:—

JUDICIAL COMMITMENTS TO HOSPITALS.

SECT. 11. A judge of the supreme judicial court or superior court, in any county where he may be, and a judge of the probate court, or of a police, district, or municipal court, within his county, may commit to either of the state lunatic hospitals any insane person, then residing or being in said county, who in his opinion is a proper subject for its treatment or custody.

SECT. 12. Except when otherwise specially provided, no person shall be committed to a lunatic hospital, asylum, or other receptacle for the insane, public or private, without an order or certificate therefor, signed by one of the judges named in the preceding section, said person residing or being within the county as therein provided. Such order or certificate shall state that the judge finds that the person committed is insane, and is a fit person for treatment in an insane asylum. And said judge shall see and examine the person alleged to be insane, or state in his final order the reason why it was not deemed necessary or advisable to do so. The hearing, except when a jury is summoned, shall be at such place as the judge shall appoint. In all cases the judge shall certify in what place the lunatic resided at the time of his commitment; or, if the confinement is ordered by a court, the judge shall certify in what place the lunatic resided at the time of the arrest in pursuance of which he was held to answer before such court; and such certificate shall, for the purposes of section eleven, be conclusive evidence of his residence.

JUDICIAL COMMITMENTS TO HOSPITALS.

SECT. 13. No person shall be so committed, unless in addition to the oral testimony there has been filed with the judge a certificate signed by two physicians, each of whom is a graduate of some legally organized medical college, and has practised three years in the state, and neither of whom is connected with any hospital or other establishment for treatment of the insane. Each must have personally examined the person alleged to be insane within five days of signing the certificate; and each shall certify that in his opinion said person is insane, and a proper subject for treatment in an insane hospital; and shall specify the facts on which his opinion is founded. A copy of the certificate, attested by the judge, shall be delivered by the officer or other person making the commitment to the superintendent of the hospital or other place of commitment, and shall be filed and kept with the order.

SECT. 14. A person applying for the commitment or for the admission of a lunatic to a state lunatic hospital, under the provisions of this chapter, shall first give notice in writing to the mayor, or one or more of the selectmen, of the place where the lunatic resides, of his intention to make such application; and satisfactory evidence that such notice has been given shall be produced to the judge in cases of commitment.

SECT. 15. Upon every application for the commitment or admission of an insane person to a hospital or asylum for the insane, there shall be filed with the application, or within ten days after the commitment or admission, a statement in respect to such person, showing as nearly as can be ascertained his age, birthplace, civil condition, and occupation; the supposed cause and the duration and character of his disease, whether mild, violent, dangerous, homicidal, suicidal, paralytic, or epileptic; the previous or present existence of insanity in the person or his family; his habits in regard to temperance; whether he has been in any lunatic hospital, and, if so, what one, when, and how long; and, if the patient is a woman, whether she has borne children, and, if so, what time has elapsed since the birth of the youngest; the names and address of his father, mother, children, brothers, sisters, or other next of kin, not exceeding ten in number, and over eighteen years of age, when the names and address of such relatives are known by the person or persons making such application, together with any facts showing whether he has or has not a settlement, and, if he has a settlement, in what place; and, if the applicant is unable to state any of the above particulars, he shall state his inability to do so. The statement, or a copy thereof, shall be transmitted to the superintendent of the hospital or asylum, to be filed with the order of commitment, or the application for admission. The superintendent shall, within two days from the time of the admission or commitment of an insane person, send, or cause to be sent, notice of said commitment in writing, by mail, postage prepaid, to each of said relatives, and to any other two persons whom the person committed shall designate.

SECT. 16. After hearing such other evidence as he may deem proper, the judge may issue a warrant for the apprehension and bringing before

JUDICIAL COMMITMENTS TO HOSPITALS.

him of the alleged lunatic, if in his judgment the condition or conduct of such person renders it necessary or proper to do so. Such warrant may be directed to and be served by a private person named in said warrant, as well as by a qualified officer; and, pending examination and hearing, such order may be made concerning the care, custody, or confinement of such alleged lunatic as the judge shall see fit.

SECT. 17. The judge may, in his discretion, issue a warrant to the sheriff or his deputy, directing him to summon a jury of six lawful men to hear and determine whether the alleged lunatic is insane.

SECT. 18. The jurors shall be selected in equal numbers from the place in which the trial is had, and one or two adjoining places, as the judge shall direct; and the same proceedings shall be had in selecting and impanelling the jury as are prescribed in chapter forty-nine, except that in the counties of Suffolk and Nantucket all the jurors may be taken from the same place.

SECT. 19. The judge shall preside at such trial, and administer to the jury an oath faithfully and impartially to try the issue, and the verdict of the jury shall be final on the complaint.

SECT. 20. If by reason of challenges or otherwise there is not a full jury of the persons summoned, the judge shall cause the officer who served the summons, or in his absence the officer attending the jury, to return suitable persons to supply the deficiency; and shall have the same authority as the supreme judicial court to enforce the attendance of jurors and witnesses, and inflict fines for non-attendance.

SECT. 21. The officer who summons and attends the jury shall receive therefor four cents a mile for all necessary travel, and one dollar and fifty cents for each day that he attends upon them; and the jurors and witnesses shall be entitled to such compensation as is prescribed for jurors and witnesses in the supreme judicial court.

SECT. 22. Each judge shall keep a docket or record of the causes relating to lunatics coming before him, numbered or otherwise properly designated, and the disposition of them. He shall also receive and keep on file the original application, statement of applicant, and certificate of physicians; and the copy of the order of commitment, attested by and with the return thereon of the officer or other person serving the same.

SECT. 23. The fees of the judge shall be as follows: for hearing and determining the application and filing papers, in cases where the alleged lunatic is brought before him, three dollars; and in cases where he is required to go from his office or place of business to see and examine the alleged lunatic, an additional fee of one dollar and all necessary expenses of travel. In cases where more than one day is actually and necessarily occupied in a hearing, two dollars for each additional day shall be allowed. The fee for the physician's certificate shall be two dollars for each physician, and twenty cents for each mile travelled one way. The fees for officers serving process under this chapter shall be the same as are allowed by law in like cases.

JUDICIAL COMMITMENTS TO HOSPITALS.

SECT. 24. All necessary expenses attending the apprehension, examination, trial, or commitment of an alleged lunatic, shall, where the commitment is to a state lunatic hospital, county receptacle, or the Boston lunatic hospital, be allowed and certified by the judge and presented as often as once a year to the county commissioners, who shall examine and audit the same; and they shall then be paid by the treasurer of the county of which the alleged lunatic is an inhabitant. When application is made for commitment to any other asylum, hospital, or receptacle, the expenses shall be paid by the applicant, or some one in his behalf.

SECT. 25. When the state board has reason to believe that any insane person, not incurable, is deprived of proper remedial treatment, and is confined in an almshouse or other place, whether such insane person is a public charge or otherwise, it shall cause application to be made to a judge for the commitment of such person to a hospital in the manner herein prescribed.

SECT. 26. The superintendent or keeper of any lunatic hospital, including the McLean Asylum at Somerville, may receive into his custody and detain in such hospital or asylum, for a period not exceeding five days, without an order of a judge, as provided in section eleven, any person as insane whose case is duly certified to be one of violent and dangerous insanity and emergency by two physicians qualified as provided in section thirteen, which certificates shall be separately made and signed, and shall conform in all other respects to the provisions of section thirteen. In addition to such certificates, an application, signed by one of the selectmen of the town, or by the mayor or one of the aldermen of the city in which such insane person resides or is found, shall be left with the superintendent of the hospital or asylum in which the insane person is received, and such application shall contain the statement in respect to such insane person which is required by section fifteen, and a further statement that the case is one of violent and dangerous insanity.

SECT. 27. When an insane person is committed to a lunatic hospital or asylum in accordance with the provisions of the preceding section, the party committing such person shall give a bond in the sum of one hundred dollars to the treasurer of such hospital or asylum, with condition that he will within five days procure an order for the commitment of said patient, as provided in section eleven, or, failing thereof, will remove him.

SECT. 28. The superintendent or keeper of any hospital, as aforesaid, may receive and detain therein, as a boarder and patient, any person who is desirous of submitting himself to treatment, and makes written application therefor, but whose mental condition is not such as to render it legal to grant a certificate of insanity in his case. No such boarder shall be detained for more than three days after having given notice in writing of his intention or desire to leave such hospital.

SECT. 29. When a patient is received into any such hospital upon his own application, or under the provisions of section twenty-six, the superintendent thereof shall give immediate notice of such reception to the

JUDICIAL COMMITMENTS TO HOSPITALS.

state board of health, lunacy, and charity, stating all the particulars of the case, including the legal settlement of the person so received if known; and said board shall immediately cause such cases to be investigated, and a record to be made of all the facts pertaining thereto.

SECT. 30. Any physician who wilfully conspires with any person unlawfully or improperly to commit to any lunatic hospital or asylum in this state any person who is not insane, shall be punished by fine or imprisonment at the discretion of the court.

SECT. 48. Any judge authorized under this chapter to commit lunatics may, in his discretion, commit any insane person not furiously mad, and having a settlement in this state, to the county receptacle aforesaid.

Commitments of the insane under the above statutes do not seem to have increased or diminished materially since the Act of 1879 took effect, nearly three years ago, in any part of the Commonwealth, there having been a slight and gradual increase throughout the State, not proportionate to the gain in population. Thus, the number of admissions from the general population in 1878 to all the State hospitals and asylums was about 1,087; in 1879, about 1,061; in 1880, 1,057; in 1881, 1,119,—as shown by the following Table A. The admissions to the other hospitals and asylums from the general community were such as to change this apparent decrease since 1878 into a slight increase, such as had been going on for a few years previous to 1878. In that particular year the commitments were largely increased by the opening of the new hospital at Danvers; while the fact that our hospitals are nearly all full, no doubt, tends to diminish commitments at the present time. The commitments at other than State hospitals during 1881, especially at the Boston Lunatic Hospital, have been more than usual. The number of certifying physicians in cases of commitment now exceeds 600 in a year; and the certificates, especially in Boston, are much more full and exact than formerly.

COMMITMENTS TO STATE HOSPITALS.

TABLE A. — *Monthly Commitments to the State Lunatic Hospitals for Six Years, omitting Transfers between Hospitals.*

HOSPITALS AT—	JANUARY.					FEBRUARY.					MARCH.					APRIL.					MAY.					JUNE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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MONTHLY COMMITMENTS TO HOSPITALS.

The above table will be found interesting on several accounts, and we may call attention to some of the facts which it indicates; for instance, that commitments of the insane vary regularly by seasons and months of the year, being lowest in February, November, and December, and highest in May and June, during which two months the commitments for six years past have averaged higher by 20 than the steady monthly average for the other ten months; the average commitments during May and June having been 104 each month, and for the other ten months 84. It will further be seen that the monthly average in 1876 for the whole year was but 83, that in 1878 it rose to 91, and in 1881 has been nearly 94.

The law of commitment itself, while it secures greater care on the part of magistrates and physicians, has to that extent perhaps checked admissions; but, on the other hand, the greatly increased number of committing magistrates has had an opposite effect, and upon the whole the result as to numbers is much the same as if the old law had remained in force. Nor has the provision for the prompt admission of emergency cases, and the permission given the hospitals to receive voluntary patients, operated as yet to increase very much the number of patients in those hospitals. This last-named legislation is so recent, however, that it cannot yet be judged what its final effect will be.

The rapid accumulation of patients in the hospitals and asylums, which has already been noticed, is not so much owing to the increase of commitments as to delays in discharging; the fact being that the outside community, though less prompt than could be wished in sending recent cases of insanity to the hospitals for curative treatment, is still less disposed to withdraw patients who have fallen into the chronic stage of the disease. It has been found very difficult to provide places in families for the board of these chronic patients, and almost equally difficult to bring relatives and friends to take care of them in their own families.

THE LAWS OF DISCHARGE.

THE DISCHARGE OF LUNATICS.

The following are the laws authorizing the discharge of patients, besides the general authority of discharge granted to this Board in the first section of chap. 87 of the Public Statutes above cited:—

SECT. 38. The governor may at any time cause to be removed from any one of the state lunatic hospitals to either of the others such of the inmates thereof as circumstances or the necessities of the case may in his judgment require.

SECT. 39. If at any time all the state lunatic hospitals are so full that all the inmates cannot be suitably accommodated therein, and in the opinion of the trustees of either hospital it is proper that some should be removed, the trustees may remove to their respective homes, or to the places of their legal settlement, or of their residence, so many as may be necessary to afford suitable accommodation for the remainder; but only such patients shall be selected for removal as, in the opinion of the trustees and superintendent, are not susceptible of improvement, and can be suitably managed at their homes or in the places to which they may be sent.

SECT. 40. Any two of the trustees of a state lunatic hospital, on an application in writing or of their own motion, or any judge of the supreme judicial court at any time and in any county, or the judge of the probate court for the county in which the hospital is situated, or in which the patient had his residence at the time of his commitment or admission, on such application, and after such notice as the said trustees or judge may deem reasonable and proper, may discharge any person confined therein, if it appears that such person is not insane, or, if insane, will be sufficiently provided for by himself, his guardian, relatives, or friends, or by the city or town liable for his support, or that his confinement therein is not longer necessary for the safety of the public or his own welfare.

SECT. 41. Any two of the trustees may also remove any person confined therein to the city or town in which the judge committing him certified that he resided at the time of the order for commitment, or to the place of his settlement, when in their opinion he ceases to be dangerous, and is not susceptible of mental improvement at the hospital, if such city or town does not remove him after reasonable notice in writing.

SECT. 42. Any person may make written application to a judge of the supreme judicial court at any time and in any county, setting forth that he believes or has reason to believe that a person therein named is confined as an insane person in a lunatic hospital or other place, whether public or private, and ought not longer to be so confined, and stating the names of all persons supposed to be interested in keeping him in confinement, and requesting his discharge.

THE DISCHARGE OF LUNATICS.

SECT. 43. The judge, upon reasonable cause being shown for a hearing, shall order notice of the time and place of hearing on said application to be given to the superintendent in charge of the hospital or place of confinement, and to such other persons as he deems proper, and such hearing when ordered shall be had as speedily as conveniently may be before any judge of the supreme judicial court in any county. The alleged insane person may be brought before the judge at the hearing upon a writ of habeas corpus, if any party so requests and the judge deems it proper, and an issue or issues may be framed and submitted to a jury by direction of the judge or on the request of any person who appears in the case. The jurors may be those in attendance on said court, if in session at the time of the hearing, or may be summoned for the special purpose on venires issued by the clerk of said court upon the order of the judge substantially in accordance with the provisions of chapter one hundred and seventy.

SECT. 44. If it appears upon the verdict of the jury, or in the opinion of the judge, if not submitted to a jury, that the person so confined is not insane, or that he is not dangerous to himself or others, and ought not longer to be so confined, he shall be discharged from such confinement.

SECT. 45. No pauper shall be discharged from a state hospital without suitable clothing; and the trustees may furnish the same at their discretion, together with such sum of money, not exceeding twenty dollars, as they may deem necessary. Such money and the cost of such clothing, the expense of pursuing such pauper lunatics as escape therefrom, and of burial of such as die in the hospitals, shall be reimbursed to the trustees by the places of legal settlement of city and town paupers, and by the commonwealth in the case of state paupers.

By sect. 51 of this same chap. 87 of the Public Statutes, provision is made as follows for the discharge of persons from the county receptacles, of which only one, that at Ipswich, is now in existence:—

SECT. 51. Any person confined by virtue of section forty-eight may be discharged, when in the opinion of a judge authorized to commit insane persons such discharge would be for the benefit of such person, or when in his opinion such person would be comfortably supported by any parent, kindred, friend, master, or guardian, or by any place in which he has a legal settlement.

Practical Enforcement of these Laws.

Upon particular sections of this law of discharge some remarks may be made. Sect. 38 has quite fallen into disuse for nearly twenty years, or since the Board of State Charities

REMOVAL OF INSANE PRISONERS.

was organized in 1863; the central Board having since performed the duty earlier imposed upon the Governor. The Governor still holds a power of commitment to the lunatic hospitals, however, in the case of convicts becoming insane in the prisons, particularly in the State Prison; but this power, under chap. 250 of the Acts of 1880, is exercised, after this Board, through its standing committee of experts, has passed upon the insanity of such prisoners at Concord or at Sherborn. The law on this subject, as it will stand in the Public Statutes, chap. 222, sects. 10 to 14 (the last-named section being a transcript of chap. 165, sects. 1 and 3 of the Acts of 1881), is as follows:—

REMOVAL OF INSANE PRISONERS.

SECT. 10. The state board of health, lunacy, and charity shall designate two persons, expert in cases of insanity, to examine convicts in the state prison or reformatory prison, alleged to be insane. When any such convict appears to be insane, the warden or superintendent shall notify one of the persons so designated, who shall, with the physician of the prison, examine the convict and report to the governor the result of their investigation. If upon such report the governor deems the convict insane and his removal expedient, he shall issue his warrant directed to the warden or superintendent authorizing him to cause the convict to be removed to one of the state lunatic hospitals, there to be kept until, in the judgment of the superintendent and trustees of the hospital to which he may be committed, he should be returned to prison. When the superintendent and trustees of the hospital have come to such judgment, the fact shall be certified upon the warrant of the governor, and notice shall be given to the warden or superintendent of the prison, who shall thereupon cause the convict to be reconveyed to the prison, there to remain pursuant to the original sentence, computing the time of his detention or confinement in the hospital as part of the term of his imprisonment.

SECT. 11. Any officer authorized to serve criminal process may execute an order for the removal of a convict to or from any prison under the provisions of the preceding section. The person making such examination of a convict under the preceding section shall, if he is not a salaried officer of the state board of health, lunacy, and charity, receive for his services his actual travelling expenses and three dollars a day for each day so employed, which shall be paid from the annual appropriation of the prison in which the convict is examined.

SECT. 12. When a convict in a house of correction or prison other than the state prison or reformatory prison appears to be insane, the physician in attendance shall make a report thereof to the jailer or master, who shall transmit the same to one of the judges mentioned in section

COMMITMENT AND DISCHARGE OF INSANE CRIMINALS.

eleven of chapter eighty-seven. The judge shall make inquiry into the facts, and, if satisfied that the convict is insane, shall order his removal to one of the state lunatic hospitals pursuant to the provisions of sections twelve and thirteen of said chapter.

SECT. 13. If a person so removed becomes sane before the expiration of his sentence, he shall be forthwith returned to the prison or house of correction from which he was removed, there to remain pursuant to his original sentence, computing the time of his confinement in the hospital as part of the term of his imprisonment.

SECT. 14. When a person held in any jail for trial or for sentence, except for a capital crime, appears to be insane, he may be removed to one of the state lunatic hospitals, as a convict may be removed from a house of correction under section twelve. When a person so removed is, in the opinion of the trustees and superintendent of the hospital, restored to sanity, he shall forthwith be returned to the jail from which he was removed, where he shall be held in accordance with the terms of the process by which he was originally committed thereto.

Further reference to this legislation, and the persons subject to it, will be made in our subsequent recommendations concerning the criminal insane.

COMMITMENT AND DISCHARGE OF INSANE CRIMINALS.

In a particular class of patients at the hospitals, the Governor must still exercise a power of discharge, if they are to be discharged at all; namely, the persons guilty of murder or manslaughter who are found to be insane, under sect. 20 of chap. 214 of the Public Statutes. For convenience, the sections of this chapter relating both to commitment and discharge will here be cited together (chap. 214, sects. 16, 19 to 21):—

SECT. 16. When a person indicted is at the time appointed for the trial found to the satisfaction of the court to be insane, the court may cause him to be removed to one of the state lunatic hospitals for such a term and under such limitations as it may direct.

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SECT. 19. When a person is acquitted by the jury by reason of insanity, the jury shall state that fact to the court, and thereupon the court, if satisfied that he is insane, may order him to be committed to a state lunatic hospital, under such limitations as may seem proper.

SECT. 20. When a person indicted for murder or manslaughter is acquitted by the jury by reason of insanity, the court shall order such

METHOD OF DISCHARGE OF THE INSANE.

person to be committed to one of the state lunatic hospitals during his natural life.

SECT. 21. Any person committed to a state lunatic hospital under the preceding section may be discharged therefrom by the governor, by and with the advice and consent of the council, when he is satisfied, after a hearing of the matter, that such person may be discharged without danger to others.

Although the cases arising under these sections are comparatively few, they are among the most perplexing of all with which our lunacy laws deal.

Sects. 39 to 41 of chap. 87 have seldom been executed formally according to their terms; but it has been, and still is, customary for the trustees of the hospitals to discharge the classes of persons mentioned in these sections according to the ordinary method of discharge; while the Board of State Charities up to 1879, and this Board, since July in that year, have attended to the discharge of such State patients as came within the meaning of sects. 39 and 40. Sect. 41 has now been materially enlarged, since its first enactment many years since, by the summary power of discharge given to this Board in the first section of chap. 87, cited on p. xcii. Sects. 42 to 44, which have stood for many years on the statute book in one form or another, are seldom put in operation so far as to result in a discharge of the patients therein described by action of the judge or jury; for such cases of late years generally find their discharge by some shorter process. Occasional instances of judicial discharge occur, however; and the sections, as they stand, contain the ancient safeguard, by process of a court, for persons improperly restrained of their liberty. For every patient so discharged during the past ten years, it is probable that five thousand patients have been discharged by the ordinary methods; nor is it likely that this power of judicial discharge will be much used hereafter, so long as this Board and the hospital authorities continue to look closely after the rights and interests of the hospital inmates.

Number and Method of Ordinary Discharges.

As will be seen by referring to Table XIX. in the Appendix, the whole number of discharges from the different hos-

METHOD OF ORDINARY DISCHARGES.

pitals and asylums in Massachusetts during the year ending Oct. 1, 1881, was 1,326; but the number of persons actually discharged, including 297 deaths, did not exceed 1,250. Almost without exception, these discharges, unless occurring by death, were made either by the superintendents and trustees of the establishments, or by this Board, for the purpose of transfer or removal from the State. In several instances applications were made to this Board, by patients or by their friends, for the discharge of persons in the hospitals by the direct authority given to this Board. In all such cases investigations were made by the Board and its officers, which resulted in several instances in the discharge by the hospital authorities of the patient for whom such application was made. In other instances (and these were more frequent) the reasons for the discharge of the applicant were found to be insufficient, and it did not then take place. It has been the wish of the Board, in all such cases, to have the discharge made by the authorities of the hospital, rather than by exercise of the Board's summary power; but had it been found necessary, in justice to the patients making application, to grant them a summary discharge, this course would have been taken. The constant communication which the Board maintains with the hospitals and their individual patients enables it to investigate such cases promptly and thoroughly; and we believe that the Board exerts a very wholesome influence, both on the hospital inmates and their friends in the community, by this portion of its work. Confidence now seems to be felt that not only will justice be done to the patients, without prejudice to the hospitals, but that the actual condition of the patients from time to time will be made known to such of their friends as are unable to visit them, or are disturbed by the circumstances in which the patients are found at the time of their visits. One example out of several which have occurred within the past year may be mentioned as illustrating cases which not unfrequently occur in the hospitals, and in which the intervention of this Board has been found beneficial. A person, evidently insane at the time, was committed to one of the insane hospitals contrary to the wish of his family, in order to protect the

A BETTER CLASSIFICATION OF THE INSANE.

community from annoyance and supposed danger. In the hospital he manifested no dangerous tendencies whatever; his aberration of mind diminished; and, after a careful examination of his case in all its circumstances by the Inspector of Charities, his discharge was recommended, and was granted by the Trustees in March last. Since that time, now nearly ten months, he has been living quietly and happily with his family, his mental condition has improved, and he has given no offence to the community.

The discharge of a patient, indeed, by any authority, oftentimes results in his recommitment within a short time to the same or to some other hospital. This may not indicate that the discharge should not have been made, because it is oftentimes better for the patient, and a matter of satisfaction to his friends, to have the experiment tried of absence from the hospital. If the experiment succeeds, the patient and the community are gainers; if it fails, little harm is done in the majority of cases. It is much to be desired that there should be opportunity for boarding in families, where they would be properly treated, such of the chronic insane as do not need the restraints of a hospital. But, after considerable inquiry in various parts of the Commonwealth, we can find very few families who will receive such insane boarders for any sum within the means of the patients and their friends. Were it as easy here as in some European countries to provide in this way for the insane in private families, it would be possible to make many more discharges from our present hospitals and asylums.

A Better Classification of the Insane.

Having now presented in a general way the facts concerning our establishments for the insane, and having considered in the Special Report, under Resolve chap. 33 of 1881, a particular classification pertaining to the criminal and dangerous insane, we may next proceed to consider more fully how the whole insane population of Massachusetts may be better classified with a view to their recovery when that is possible, and to their better and more economical treatment when recovery seems to be out of the question. The number of these in-

A BETTER CLASSIFICATION OF THE INSANE.

sane persons is now so great, and the variety of their condition is such, that a permanent classification looking to the best results can perhaps be made; and the time has arrived when it is expedient, and will soon be absolutely necessary, to determine what this permanent classification should be. A new establishment of some kind, or an old establishment newly devoted to the needs of the insane, must soon be made ready in consequence of the annual accumulation of the public dependants in this class; and the Legislature will then be called on to decide where it shall be located, and for which sex or kind of the insane it shall be used.

At present, as the Tables of Insanity in the Appendix will show, the largest number of persons, and of recent cases of insanity, find admission to the new hospital at Danvers; and the commitments to this hospital are so numerous as to embarrass quite seriously the medical treatment of the patients, compelling frequent transfers and discharges before the patients have received the full benefit of treatment. The first practical step, then, in the better classification of the recent insane, would be to diminish the number of annual commitments at Danvers, and increase those at Worcester and Taunton, especially if the criminal and dangerous insane can be removed from those two hospitals to a special asylum. The chronic insane should be further classified by this separation of the dangerous and criminal from the general mass of the hospital patients, and by the removal of epileptics and general paralytics into wards by themselves. Should the buildings at Westborough be taken for the dangerous insane, some of these epileptics and paralytics could be removed thither, and cared for in the older portion of the structure; the criminal insane occupying the northern and eastern portion, which is comparatively new.

In connection with the subject of the curability of the insane, already mentioned in this Report, certain facts and authorities may be cited, in places remote from Massachusetts, which indicate that our Commonwealth is no exception in respect to the practical incurability of the majority of insane persons. The Lunacy Commissioners of England, in their last report, bringing down the statistics of insanity for England and

CURABILITY OF THE INSANE IN PENNSYLVANIA.

Wales to Jan. 1, 1881, give the number of insane persons in English and Welsh hospitals and asylums, of various kinds, at that date, as somewhat more than 50,000, of whom less than 3,600 were "deemed curable" by the physicians in charge of this large number of patients. Of course this could be nothing but an estimate; but, assuming it as correct, there would be only one curable patient among fourteen patients under medical treatment. If this proportion were found to hold good in Massachusetts, there would be in all our hospitals and asylums at the present time only 250 curable patients among the 3,400 now under treatment. We have stated the number of those possibly curable as 500, and suppose it to be in fact considerably greater than 250; but this English estimate from the highest authority in that country will show how the question of curability is regarded there.

The State of Pennsylvania, with a population now of above 4,000,000, seems to have a smaller proportionate number of insane persons than are found in Massachusetts; but the superintendent of the oldest State hospital for the insane in Pennsylvania, Dr. Gerhard of Harrisburg, looking back over the records of his hospital for thirty years, says in his report for 1881, on this question of curability, "Efforts have been made to create the impression that from 75 to 80 per cent of recent cases recovered under proper treatment, and that these persons were as active, productive, and useful members of society during their subsequent lives, as before the invasion of insanity. The statistics of this hospital do not warrant this assumption; nor do I believe that those of any other hospital would, if the real facts in the case were given. It is best that the truth, whatever that may be, should be frankly stated and understood. Insanity is no trifling malady; and in many cases, from the very nature of the disorder, recovery cannot take place. In those who recover, there often remains a predisposition to a subsequent attack. But the condition of the insane has greatly improved since the establishment of properly organized hospitals, and in them the great majority of the insane can be best cared for. Hospitals for the insane can only be, to a limited extent, curative institutions. But it must not be forgotten that they serve

CURABILITY OF THE INSANE IN MASSACHUSETTS.

another purpose, equally noble and humane, in furnishing homes and ministering to the needs of the insane, who otherwise would often be friendless and neglected.”

The physician of the women's department in the same hospital, Dr. Margaret A. Cleaves, who has had, in Iowa and in Pennsylvania, greater experience among insane patients than any physician of her sex in the United States, makes these remarks in the same report: —

“ We do not believe that such systematic treatment as we have introduced here, and which we believe should be carried on in every hospital where insane women are kept, will greatly increase the percentage of recoveries. There are too many factors at work in the production and perpetuation of insanity for the removal of any one cause or condition, without that of others, to bring about such a result. A large proportion of those who become insane have the seeds of mental disorder inherent at their birth. And it is because of this fact, that the same special diseased conditions do not operate alike upon all women. It is in the work of prevention therefore, rather than cure, that the greatest good is to be accomplished. The individual once insane is exceptionally the same as before, and the seeds of mental disease or tendencies to disordered nervous action, may lie dormant for the lifetime of the individual, to awaken with renewed life and vigor in the offspring.”

We certainly believe it possible to increase the percentage of recoveries above the small number which are now found in many of our hospitals; but whether these recoveries can be greatly increased is doubtful. And little change for the better can be hoped for so long as our hospitals for recent cases are encumbered with so large a population of chronic and incurable patients.

It would be well, therefore, in building a new hospital for the insane in Massachusetts, whether at public or private expense, to provide specially for the recent and curable cases. There are too many such cases in Massachusetts to be received in any one hospital; but a considerable portion of them could have better medical care at such a special hospital than is possible in the crowded wards of a mixed asylum.

Further classification of the chronic cases could be made by devoting one asylum wholly to women, who now outnumber the men in our hospitals and asylums by nearly 300,

DIFFICULTIES IN THE CARE OF THE INSANE.

and who accumulate faster than the men. A change of this kind would allow one establishment to be occupied wholly by women, and another wholly by men, thus avoiding some of the difficulties which now exist in caring for both sexes in different portions of the same building. The chronic insane capable of out-door labor might be transferred to this special asylum for men, which should have connected with it a farm and some workshops suitable for their employment. This proposed classification might be carried still farther as opportunity should offer, and so long as each step resulted in an improvement of the general condition of our insane. Measures should also be taken looking toward an earlier treatment of incipient insanity, and to the prevention of insanity wherever possible.

Unavoidable Difficulties in the Care of the Insane.

After all that can be done to improve the classification and treatment of the insane, however, there will remain certain inherent difficulties in dealing with them.

The lack of classification just mentioned is but one of these difficulties which beset the physicians and other persons occupied with the treatment of this unfortunate class. We have heard so much of late concerning the neglects and abuses in our lunatic hospitals, that the public are in danger of overlooking the other side of the question, and of underrating the obstacles which are found, and must be found, in treating the insane. It is to be remembered that the care of any class of the public dependants is difficult; that persons deprived of their reason are all the more difficult to care for; that the restraint and treatment which they need are oftentimes the very things to which they most unreasonably object; that they are seldom capable of forming a sound opinion concerning their own condition, and oftentimes are violent and perverse in a wrong opinion. This violence and perversity, though the direct result of disease, cannot fail to be very provoking to the persons who have the care of them; and it is a constant surprise and pleasure to find that there are so many competent persons who will undertake this care, either as physicians or attendants, and who perform their duties,

DIFFICULTIES IN THE CARE OF THE INSANE.

upon the whole, so well. Instances of neglect, ill judgment, ill temper, and occasional abuse, no doubt, occur, and lead to the resignation or discharge of the attendants and other persons in fault. It is found very difficult, almost impossible at some seasons of the year, to obtain a sufficient number of well-qualified attendants to take charge of the women's wards in some of the hospitals; even the physical strength necessary to control excited and violent patients not being easily attainable in case of women. This difficulty often compels the superintendents to employ persons less competent than they could wish. Nor has it always been easy to obtain the services of well-qualified young physicians for medical assistants, especially since the increase in the size of our hospitals has made the duties of a medical assistant so much harder to perform. The duties of a superintendent have also been greatly increased by the change in the size of our hospitals; while, from this and other circumstances, the medical care of the insane, as a specialty of the profession, has become less attractive than formerly, and the number of persons qualified to serve as superintendents of our State hospitals is not found to be very large. The constant criticism of lunatic hospitals here and in other States by writers in the magazines and newspapers, seldom very intelligent and often quite unjust, does not tend to make the position of superintendent attractive to persons otherwise qualified; especially when the public are asked to rely on the statements of discharged patients in regard to matters of which they could not possibly have had a clear knowledge.

PRESENT NUMBER AND LOCATION OF THE INSANE.

In order to complete this chapter, we present here a statement (Table B) showing the number, sex, and classification, with respect to support, of all the insane persons in hospitals and asylums on the 1st of January, 1882:—

PATIENTS IN HOSPITALS AND ASYLUMS.

TABLE B. — PATIENTS IN HOSPITALS AND ASYLUMS.

Jan. 1, 1882.

At the Worcester Lunatic Hospital, 596.

State patients	. . . 113	Males	272
Town patients	. . . 377	Females	324
Private patients	. . . 106		

At the Taunton Lunatic Hospital, 558.

State patients	. . . 82	Males	281
Town patients	. . . 418	Females	277
Private patients	. . . 58		

At the Northampton Lunatic Hospital, 463.

State patients	. . . 172	Males	228
Town patients	. . . 237	Females	235
Private patients	. . . 54		

At the Danvers Lunatic Hospital, 641.

State patients	. . . 109	Males	314
Town patients	. . . 442	Females	327
Private patients	. . . 90		

At the Worcester Chronic Asylum, 364.

State patients	. . . 95	Males	166
Town patients	. . . 269	Females	198

At the Tewksbury Asylum, 291.

State patients	. . . 255	Males	82
Town patients	. . . 36	Females	209

At the South Boston Lunatic Hospital, 185.

Town patients	. . . 159	Males	92
Private patients	. . . 26	Females	93

At the Ipswich Asylum, 57.

Town patients	. . . 44	Males	38
Private patients	. . . 13	Females	19

At the McLean Asylum, 154 (all private patients).

Males	62	Females	92
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Private Asylums, 46 (all private patients).

Males	17	Females	29
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SUMMARY.

Whole number of both sexes	3,355
viz. ; men, 1,552; women, 1,803	
Whole number of state patients	826
city and town patients	1,982
private patients	547
Aggregate	3,355

PART THIRD.—PUBLIC CHARITY.

PART THIRD.

PUBLIC CHARITY.

I.—THE IN-DOOR AND OUT-DOOR POOR.

BEFORE taking up in detail the relief of the poor, it may be proper here to state, in a general way, what are the relations of the Commonwealth to the persons aided by public charity, and those other classes temporarily dependent or needing supervision, with whom the duties of the Board bring its members and officers in contact. The most numerous of all these classes, and containing, originally or ultimately, nearly all the public dependants of Massachusetts, are those whom we call, for brevity, the Poor; that is, persons who require aid or support, or State supervision, either for themselves, or for their destitute or insane relatives or children. This large and constantly varying class of persons may again be divided for convenience into the in-door and out-door poor; and these classes again include, first, the in-door and out-door poor of the State, and, second, the in-door and out-door poor of the cities and towns. All these classes and persons come generally under the observation of the Inspector of Charities, and many of them also come under the observation and practical administration of the two Superintendents of In-door and of Out-door Poor. The two Departments of the Board which deal practically with these two classes of the State poor, in establishments, and in the towns of their residence, present in their statistical tables in the Appendix the important facts concerning them, in addition to such as may be found reported by the Inspector of Charities in the so-called "Pauper Abstract." These statistics also include those of immigration, which is under the direct supervision of the

THE IN-DOOR AND OUT-DOOR POOR.

Superintendent of In-door Poor, and may be first considered here.

Indeed, immigration may now be viewed as the chief source of that supply of the public poverty which yearly falls upon the State for support and aid. It is noticed in all parts of the Commonwealth that the resident population, taking one year with another, furnish a constantly decreasing number of paupers, except as insanity becomes a cause of pauperism. But from the tens of thousands who annually seek a home in Massachusetts, or who pass through the State on their way to homes in other States, the great majority of the State poor come; while the poor for whom the cities and towns make provision, though mainly resident, of course, are yet largely re-enforced by those roving persons who, having inherited or gained a pauper settlement in some city or town, have not continued to live there, but have moved to other places, or wandered about from place to place without any fixed habitation. Out of a reported total of about 40,000 "settled" persons aided in the 345 cities and towns of Massachusetts last year, 7,433 had a pauper settlement in some other place than that of their residence, — nearly a fifth part of the whole number. It is migration and immigration, then, which directly or indirectly occasion much of the pauperism that our taxpayers are called upon to relieve.

FOREIGN IMMIGRATION.

Probably no question which the Board considers is of greater national concern, or more nearly affects for good or ill the whole people of the United States, than that of immigration. To create a system of supervision or inspection, which, while placing no obstacles in the way of legitimate voluntary immigration, but on the contrary fostering and encouraging it, would yet by its provisions exact or permit such scrutiny as will practically prevent all foreign poor-law officials or philanthropists from any attempt to send to this country criminals, lunatics, or paupers, — all this, needful as it is, requires great consideration, and much and varied information relative to the matter. Upon one point, however, all persons, whether legislators, judges, or others, seem to agree,

IMMIGRATION LAWS.

— that it is a national matter, and should be governed by national laws. In this connection we may give a brief history of State legislation relative to immigration, and of the decisions of the Supreme Court of the United States affecting the subject.

Prior to May 1, 1872, most of the seaboard States—notably Maine, Massachusetts, New York, Pennsylvania, Louisiana, and California—had laws, more or less stringent, governing the landing of aliens from foreign ports within their respective borders. These laws were similar in two respects,—(1) preventing the bringing of criminals and paupers, and those who, from mental or bodily infirmity, were likely to become such; and (2) in attempting indirectly by the somewhat onerous requirement of a personal bond from masters, owners, or consignees of passenger vessels, to procure the payment (by way of the commutation of such bond) of a capitation tax for all other alien passengers so landed. The law of California alone specially included in the pauper and criminal classes “lewd or debauched women.” The Massachusetts Legislature of 1872 repealed so much of the Alien Passenger Act as required the giving of a bond, and thus relieved the owners of vessels from the payment of a sum of money in commutation. Other States continued their various Acts until a decision of the Supreme Court of the United States was promulgated, in 1876, in the New York, Louisiana, and California cases of *Henderson et al. v. Mayor of the city of New York et al.*; *Commissioners of Immigration v. North German Lloyd* and *Chy Lung v. Freeman et al.* In these various cases the Court was very decided in its expressions concerning the collection of head money by indirection, and, in the New York case, said,—

“In whatever language a statute may be framed, its purpose must be determined by its natural and reasonable effect; and if it is apparent that the object of this statute, as judged by that criterion, is to compel the owners of vessels to pay a sum of money for every passenger brought by them from a foreign shore and landed at the port of New York, it is as much a tax on passengers, if collected from them, or a tax on the vessel or owners for the exercise of the right of landing their passengers in that city, as was the statute held void in the Passenger Cases.

“To require a heavy and almost impossible condition to the exercise

THE IN-DOOR AND OUT-DOOR POOR.

of this right, with the alternative of payment of a small sum of money, is, in effect, to demand payment of that sum. To suppose that a vessel, which once a month lands from three hundred to a thousand passengers, or from three thousand to twelve thousand per annum, will give that many bonds of \$300, with good sureties, with a covenant for four years, against accident, disease, or poverty of the passenger named in such bond, is absurd, when this can be avoided by the payment of \$1.50 collected of the passenger before he embarks on the vessel. Such bonds would amount in many instances, for every voyage, to more than the value of the vessel. The liability on the bond would be, through a long lapse of time, contingent on circumstances which the bondsmen could neither foresee nor control. The cost of preparing the bond and approving sureties, with the trouble incident to it in each case, is greater than the sum required to be paid as commutation. It is inevitable under such a law, that the money would be paid for each passenger, or the statute resisted or evaded. It is a law in its purpose and effect imposing a tax on the owner of the vessel for the privilege of landing in New York passengers transported from foreign countries. . . . We are of opinion that this whole subject has been confided to Congress by the Constitution; that Congress can more appropriately and with more acceptance exercise it than any other body known to our law, State or national; that by providing a system of laws in these matters applicable to all ports and to all vessels, a serious question, which has long been matter of contest and complaint, may be effectually and satisfactorily settled."

The question, within what limits, if any, States, in the absence of national legislation, can themselves legislate to prevent the landing of criminals and paupers, was not passed upon by the Court in 1876; but the inference from its language in the several cases cited would indicate exceedingly narrow limits. In the New York case, for instance, the Court said, "Whether in the absence of such action [i.e., national legislation] the States can, or how far they can, by appropriate legislation protect themselves against *actual* paupers, vagrants, criminal and diseased persons, arriving in their territory from foreign countries, we do not decide. The portions of the New York statute which concern persons who, on inspection, are found to belong to these classes, are not properly before us."

In the California case the Court further said, "We are not called upon by this statute to decide for or against the right of a State, in the absence of legislation by Congress, to protect herself by necessary and proper laws against paupers

FOREIGN IMMIGRATION.

and convicted criminals from abroad; nor to lay down the definite limit of such right, if it exist. Such a right can only arise from a vital necessity for its exercise, and cannot be carried beyond the scope of that necessity. When a State statute, limited to provisions necessary and appropriate to that object alone, shall, in a proper controversy, come before us, it will be time enough to decide that question."

From the publication of this decision of 1876 to the year 1881, no attempt was made for the collection of "head money," at any port of the United States, from or on account of arriving aliens, by authority of State laws; but an earnest endeavor has been made in New York and elsewhere (thus far without success) to obtain from some source such sums as might be necessary to pay the cost of proper supervision, and to reimburse to the several States a portion of the expense of the support of such aliens as might fall into distress within a brief period from their landing. This leaves all Boards charged with the supervision of immigration in the position described by the General Agent of the Massachusetts Board of State Charities in his report of 1877, when he said, —

"As General Agent of the Board, I act as superintendent of alien passengers for the ports of Massachusetts; and, in the performance of the duties of that office, I am required to go on board all vessels here arriving from foreign ports, having alien passengers on board, to examine into the condition of such passengers, to receive from the commanding officer of each vessel a written report, and to prohibit the landing of any such passengers until such report is made. It is my duty also to require a bond to be given in each case, before permitting an insane, idiotic, deaf and dumb, blind, deformed, or maimed person to land, and to prohibit the landing of criminals, or persons of a "notoriously dissolute, infamous, and abandoned life and character." My authority under our statutes so to act was never questioned, unless by the United States Supreme Court in the New York and California cases lately decided. I understand that decision to be, in effect, that immigration is a matter of commerce, with which State legislation cannot constitutionally deal; leaving undecided the equally important question what State legislation may be had in the way of protecting the several communities from an influx of paupers and criminals. And this, although a majority of the judges of the same court, at an earlier day, had most emphatically declared that this last-named legislation was constitutional and absolutely necessary for the protection of the health, the morals, and the property of each Common-

THE IN-DOOR AND OUT-DOOR POOR.

wealth. My position thus becomes embarrassing, as I am unable to ascertain the extent of my powers or the measure of my responsibilities. The question of jurisdiction, and its extent, can best be settled by national enactment, which might very properly accompany such legislation by Congress as is necessarily consequent upon the overthrow of State laws declared unconstitutional."

In May and June last the New York Legislature passed "An Act for the inspection of alien emigrants and their effects by the Commissioners of Emigration," and "An Act to raise money for the execution of the inspection laws of the State of New York." The provisions of this last-named Act permit the collection from the various steamship companies of the sum of one dollar for each alien passenger brought into that State by such companies from foreign ports, and further requires that such portion of the sum so collected as may not be needed for the purposes of such inspection shall be paid into the national treasury. Four of the steamship companies combined to make a test case for the courts, and a decision favorable to the collection of the tax was rendered in the State courts in October. It is understood that the companies will endeavor to get the case transferred to the United States courts, in hopes of a reversal of this decision. Some time must necessarily pass before the constitutionality of this New York Act can be affirmed or denied; and, pending such affirmation or denial, it is the purpose of the New York Commissioners of Emigration and the State Board of Charities of New York to earnestly labor to obtain national legislation which will provide for the reimbursement of the expenses of the inspection or supervision of immigrants, and the expenses for the support of such immigrants as may require temporary aid. This they hope to obtain, either by the imposition of a tax upon aliens landing (as under former State laws), or by a grant of money from the national treasury. The position of this Board and of its predecessor, the Board of State Charities, has always been favorable to a capitation tax, payable by the persons or corporations bringing aliens into the State; and in an earlier report the Board suggested the passage of a legislative resolve requesting our senators and representatives in Congress to give a bill of

PAUPER IMMIGRANTS LANDED.

this character, which had then been introduced into the House of Representatives, their careful consideration. That legislation of this character is an imperative necessity is the general opinion of the State Boards.

Pauper Immigrants Landed here.

Without supervision, immigration would be far from an unmixed blessing. With the best supervision that can be had under our imperfect laws, thirty-four aliens, insane when arriving, were received into the lunatic hospitals of this State during the past year. One of the more noticeable of these cases is that of Charlotte Maria Peterson, a native of Copenhagen, who was sent from that city to Boston in October, 1880, *viâ* Glasgow and New York. She had been paralyzed for twelve years and insane for three years; and, lest her Danish friends might be distressed by her absence, she was promptly returned to her European home.

Another woman, Mrs. Matilda English, aged seventy-two, was born in Halifax, N.S., and resided there until May, 1881. She had then been out of health, bodily and mentally, for two and a half years, and was long assisted by wealthy persons in that city. By the same persons her passage-money was paid, and she was sent to friends in Massachusetts, who promptly placed her in the Taunton Lunatic Hospital. Philip J. Roche, born in Newfoundland, idiotic, who had been gradually growing worse for some months, was promptly shipped for Boston in care of a cousin, and arrived here Aug. 1, 1881. Five weeks later he was committed to the hospital at Danvers. Another case is that of Michael Donovan, a native of county Cork, Ireland, who with his family, inmates of a union workhouse, were shipped at the expense of the Irish authorities to Boston, arriving July 9, 1881. Six weeks later Donovan appeared at the lunatic hospital in Danvers, and a personal investigation disclosed the fact that one of his children was an idiot.

Of course, in all such cases landing at our ports, bonds for support are exacted, and the first-mentioned three were returned to their homes: but the case of Donovan presents another and not uncommon feature; viz., a family, from

STATISTICS OF IMMIGRATION.

whom the sentiment of our community will not permit so complete a separation as his return to Ireland. Yet the reimbursement to the State Treasury of the amount paid to the hospital for his support is but a small portion of the expense actually incurred on his account.

This evil of pauper immigration is great and increasing. How to remedy it, in the absence of national legislation, is a problem. It may be well to await the decision of the Supreme Court of the United States on the constitutionality of the New York Inspection Act before recommending State legislation. A copy of this Act may be found in the Appendix (pp. 86-87).

STATISTICS OF IMMIGRATION.

The detailed information concerning the immigration of the past year will be found in the Appendix as usual; but some general facts may here be stated:—

Vessels and Passengers.

NATIONALITY.	Number of Vessels.	Number of Passengers.	Aliens Bonded.	Immigrants not Bonded.
British vessels	983	43,274	98	34,479
American vessels	282	21,663	15	8,576
Other vessels	14	513	1	473
Total	1,279	65,450	114	43,528

Classification of Passengers.

Americans	5,036
Aliens previously residing in the State	16,772
Aliens bonded	114
Aliens never in the State before	43,258
Total	65,450

This is the largest number of passengers and of immigrants ever landed in Boston in a single year, as will appear by a table in the Appendix.

The age, sex, and nativity of the immigrants were as follows:—

STATISTICS OF IMMIGRATION.

Age and Sex of Immigrants.

Under fifteen years	8,829
Fifteen to twenty-five years	18,945
Twenty-five to fifty years	13,905
Fifty years and upward	1,963
Total (bonded and not bonded)	43,642
Males	24,127
Females	19,515
Total	43,642

It will be seen that the men are still largely in excess of the women among these immigrants, as has always been the case. But this disproportion is greater now than formerly. It is greatest when the whole immigration is largest, and smallest when the whole immigration is small, as it was from 1860 to 1866. The nativity of immigrants has also varied greatly since 1848, when our records first began. During the first twenty-seven years, from 1848 to 1874 inclusive, more than half the immigrants were of Irish birth, and nearly a fifth part came from England; while Germany, Sweden, and Denmark together furnished less than a twelfth part. Last year Ireland furnished less than a third part of the immigrants landing at Boston; England, less than a sixth part; while Germany, Sweden, and Denmark together sent more than a fifth part; and Sweden alone (including Norway), nearly as many as England. The British Provinces, which formerly furnished less than a sixth part, now send nearly a fourth part. But many of those from these Provinces and from England are of Irish parentage.

Nativity of Immigrants.

British Provinces	10,281	Wales	36
England	9,404	Denmark	315
Ireland	12,859	Belgium	66
Germany	1,786	Hungary	46
Scotland	2,279	France	119
Sweden	6,735	Austria	17
Holland	271	Russia	55
Poland	219	Spain	5
Switzerland	15	Italy	81

REMOVALS FROM THE STATE.

Nativity of Immigrants—Continued.

Greece	1	Africa	2
East Indies	2	South America	16
West Indies	30	Other countries	216
Western Islands	1,194		
Australia	1	Total	43,642

It is impossible to say how many of these immigrants remained in Massachusetts, but probably twenty thousand; while perhaps as many more entered the State from New York, Canada, etc. Many immigrants depart at once for other States, and never return to Massachusetts; others leave us after a few months, and may return at some future time; a comparatively small number, yet many in the aggregate, are removed by this Board, for reasons that may here be given, since they are sometimes misunderstood and often misrepresented.

Removals from the State.

The State poor of Massachusetts (including all who have not gained a poor-law settlement in some city or town, under laws to be recited hereafter) are divided into two main classes, — *First*, those who have been domiciled in Massachusetts such a length of time as to give them an equitable claim upon its charities; and, *second*, those who have within a short period found their way hither, and who have therefore a legal or equitable claim upon other communities. Of these last, many must remain with us, because they belong to families whose other members are self-supporting, and their removal would sunder family ties. But a large number are not so situated; and therefore their removal from the State, and to their former homes, is ordered by this Board. This work of removal is often of a delicate nature, requiring officers of intelligence and experience for its proper performance. Even then, and after the expenditure of much time and money by the State officials, hardship will sometimes ensue; but the necessity of the work is beyond question, if our institutions are not to be filled with persons having a perfectly legitimate claim upon other communities, and none upon ours. The greater portion of these removals are made from among the

LAWS OF PAUPER SETTLEMENT.

inmates of the State Almshouse and State Workhouse, which serve as receptacles for the migrating poor, and from the local office of the Board in Boston. The following statement shows, *first*, the whole number (2,888) of persons removed last year, either beyond the State limits or to places of settlement within the State; and, *second*, the number of special removals, included in the above total, under a law of 1851:—

Persons removed during the year were sent from the following-named places:—

From the Danvers Lunatic Hospital	.	.	.	.	.	.	121
Taunton Lunatic Hospital	.	.	.	.	.	.	39
Worcester Lunatic Hospital	.	.	.	.	.	.	42
Northampton Lunatic Hospital	.	.	.	.	.	.	16
Asylum for Insane, Tewksbury	.	.	.	.	.	.	30
State Workhouse, Bridgewater	.	.	.	.	.	.	370
State Primary School, Monson	.	.	.	.	.	.	41
State Almshouse, Tewksbury	.	.	.	.	.	.	1,383
Local office, Boston	.	.	.	.	.	.	846
Total	.	.	.	.	.	.	2,888

Special Removals.

Persons removed from the State under the law of 1851, which requires persons, by whose means paupers have been brought into the State, to remove them:—

<i>Viâ</i> Old Colony Railroad	.	.	.	.	.	.	149
Boston and Providence Railroad	.	.	.	.	.	.	77
Boston and Albany Railroad	.	.	.	.	.	.	3
New York and New England Railroad	.	.	.	.	.	.	13
Boston and Maine Railroad	.	.	.	.	.	.	4
Eastern Railroad	.	.	.	.	.	.	6
Boston and Lowell Railroad	.	.	.	.	.	.	3
Fitchburg Railroad	.	.	.	.	.	.	1
Conveyance by water	.	.	.	.	.	.	111
Total	.	.	.	.	.	.	367

LAWS OF PAUPER SETTLEMENT, AND THEIR PRESENT ADMINISTRATION.

The greatest change in our poor-law administration, since the close of the civil war, has resulted from numerous amendments of the law of settlement, by which a much larger

LAWS OF PAUPER SETTLEMENT IN 1794.

number of our people are now entitled to relief in the cities and towns of their residence than in 1865. At that time it was estimated that more than half the population of Massachusetts, if reduced to poverty and applying for public aid, must have been aided by the State. At present not a fourth part of our population are in this "non-settled" condition; and the operation of the laws is now such as annually to increase the "settled" population; while the result of immigration is to increase the "non-settled." This throws upon the cities and towns a larger expenditure than formerly, while it relatively relieves the State; but it is better, on general grounds, that the poor should be aided in the community where they live and are known, than removed to great State establishments, and separated from those who know best how to deal with them.

Prior to 1865 no material change had been made in the settlement laws since the Act of 1794, which is the foundation of all existing settlements. This was a statute, to use its own language, "enacting and ascertaining what shall constitute a legal settlement of any person in any town or district within this Commonwealth so as to subject and oblige such town or district to support such person in case of his becoming poor and standing in need of relief;" and this was done in one of the following various ways:—

First, A married women was to follow and have the settlement of her husband.

Second, Legitimate children to follow and have the settlement of their father.

Third, Illegitimate children to follow and have the settlement of their mother at the time of their birth.

Fourth, Settlement was acquired by citizenship, an adult age, and the possession of an estate of inheritance or freehold of a yearly income of \$10 for three successive years.

Fifth, By citizenship, an adult age, and the possession of an estate of the value of \$200 for five successive years.

Sixth, By serving one year as town clerk, treasurer, selectman, overseer of the poor, assessor, constable, or collector of taxes.

Seventh, For all settled, ordained ministers, by such ministerial settlement.

LAWS OF PAUPER SETTLEMENT SINCE 1794.

Eighth, By admission as an inhabitant of any town or district, by vote.

Ninth, By dwelling in an unincorporated place at the time when it became incorporated.

(The *tenth* mode, so called, properly points out what legal settlements may be retained, where towns or districts are divided or incorporated.)

Eleventh, By service as an apprentice for four years, and carrying on business for the five following years.

Twelfth, By citizenship, an adult age, a residence of ten years, and the payment of a poll-tax in five of those years.

In 1822 a slight change was made in the requirements of the fourth mode; and in 1865 the first of a series of "military settlement" laws was enacted. This latter provision for the acquisition of pauper settlement remains substantially the same as when enacted in 1865, excepting that the six months' residence before enlistment, therein required, is no longer a requisite for settlement; it being now only necessary that the person "shall have been duly enlisted into the military or naval service of the United States as a part of the quota of some city or town in the Commonwealth, and have duly served for not less than one year, and been honorably discharged, or have died or become disabled, from wounds or disease received or contracted while engaged in such service."

No other successful attempt to change the old methods of acquiring a pauper settlement was made until 1868, when it was prospectively enacted that the citizenship required in the fourth, fifth, ninth, and twelfth clauses of the Act of 1794 should no longer be necessary for a settlement under these provisions; and this law was made retroactive by a statute of 1871. In 1874 the residence required in the twelfth clause of the Act of 1794 was shortened from ten to five years, and the taxation from five to three years. This law is prospective only as applied to cases where there were existing settlements, but retroactive in cases where there were no previous settlements. In 1874, also, unmarried women, without sufficient estate of their own to give them a settlement, obtained one by five years' residence only; which provision was extended in 1879 to include married women.

LAWS OF PAUPER SETTLEMENT AND OUT-DOOR RELIEF.

The Act of 1794 abrogated all previous Acts by which pauper settlements could be acquired; but all settlements then acquired under such previous Acts were continued. The Settlement Acts prior to 1794 were very numerous, and provided for a settlement in various ways; and these, though repealed, left behind them a legacy of trouble to poor-law officers. As years passed, the work of tracing settlements originally acquired before 1794 became more and more difficult, and fell almost exclusively into the hands of certain learned attorneys who had become expert in this peculiar work. In 1870 the Legislature enacted that "all settlements acquired by virtue of any provision of law in force prior to the eleventh day of February, 1794, are hereby defeated and lost."

The existing settlement law, then, is substantially that of 1794, with these exceptions: *First*, the abrogation of the provision requiring naturalization as a requisite to obtaining a settlement; *second*, a shortening of the time and reduction in the number of taxes required for the acquisition of a settlement by men; and, *third*, the provision conferring settlements on women for residence only. Add to these the provisions of the military settlement law, and we have, substantially, the law of to-day.

These changes of law have been rendered necessary by the changing relations of life consequent upon migration and foreign immigration, which domiciled with us a large number of people who, from the accident of birth, were cut off from the franchise of derivative or inherited settlement, and could acquire a settlement only after naturalization. Persons having the qualifications mentioned in some one of these laws for acquiring a settlement, when in distress and needing relief, must be provided for at the expense of some city or town; and all others at the expense of the State.

THE LAWS FOR OUT-DOOR RELIEF BY THE STATE.

This is granted under two statutes:—

1. To the sick State poor under chap. 162 of the Acts of 1865.

2. In the form of temporary aid, to the poor who are not sick, under chap. 183 of the Acts of 1877.

OUT-DOOR RELIEF BY THE STATE.

Prior to the opening of the State almshouses in 1854, the State poor were taken care of by the towns under a compromise, the relics of which yet appear on our statutes. In early days a large majority of the towns had no State paupers at all, or next to none. They were mostly found in our single city, the seaport towns, and a few thrifty places in the interior. The smaller towns, having few or none, demurred at being taxed for the benefit of the towns having many. "They are rich," they argued, "and growing richer by the productive labor of the class whence these paupers come. They have called them in for their own benefit. Then let them help them if they are needy. What have we to do with it? Why should we carry their burdens?"

The other side, the larger towns, replied, "We cannot grow rich without benefiting all. We create markets for your produce. We find labor for your children who wish to be mechanics or operatives, and thus prevent enforced emigration. The capital invested within our limits is but partly owned here. It comes from all over the State, and its presence here compels heavy local taxation. Besides, there are the settlement laws, which you must recognize as long as they stand, and we will not consent to their repeal."

The controversy was long and angry, but resulted in this agreement: That the towns should support all the State poor found within their respective limits; for all that were wholly supported and unable to labor even half a day, the towns were to receive from the State Treasury forty-nine cents per week for each adult, and twenty-eight cents for each child; and, for burying the dead, five dollars for an adult, and two dollars and fifty cents for every child under twelve. All other expenses were to be borne by the respective towns; the bills of the towns to be audited by the legislative Committee on Accounts.

This compromise was generally accepted, and for a long time was doubtless carried out with tolerable good faith. But with increasing immigration, extended manufactures, and added facilities for travel, difficulties multiplied, and frauds were suspected. The legislative committee could not audit one-fourth of the bills in their allotted time. They

OUT-DOOR RELIEF BY THE STATE.

were indeed several years behindhand; so much so, that to this day we cannot ascertain the actual annual cost of supporting the State poor during that period. In this dilemma the office of Auditor of Accounts was created, and a commission sent to each city and town to learn the exact facts. The result was conclusive. It was found that dead paupers had been charged for as if living; that, during the suspension of work, whole manufacturing villages had been enrolled as State paupers; that in some small towns trifling gifts to families were made the basis of charging all their members to the State for the entire winter. Many other similar impositions were discovered; and the necessity of State supervision was so clearly proved, that almost without opposition the Alien Commission was created in 1851, to take charge of this whole matter, together with the mass of impoverished and fever-stricken immigrants then pouring into the State. The three State almshouses and the hospital at Rainsford Island were opened in 1854 to relieve the towns from burdens which they could not carry.

But even here the same compromise was visible. The towns were allowed to send all the State paupers to these institutions whom they could or would; but the sick and aged whom they could not send, and those whom they chose to retain, were to be maintained at their own cost.

Much of the labor performed by the two departments of this Board, for the in-door and the out-door poor, consists in tracing the settlement of persons reported by the Overseers of the Poor in cities and towns as State paupers; and then in disposing of the poor persons in question, according to the law of the State, and the necessity or equity of the case. This system of settlement laws, above described (and to which reference will again be made in this Report), though complicated and requiring patience and research, in order to understand and comply with its requirements, will yet be found to have its basis in equity and good sense. Its actual operation is to bring each case of alleged destitution among the people of Massachusetts under the observation of experienced persons, who decide whether the destitution is real, and whether it is temporary or likely to be permanent.

HOW THE OUT-DOOR POOR ENTER THE ESTABLISHMENTS.

Were not this condition of the poor made known as it now is to the public authorities (and this our settlement laws make unavoidable), they would either receive too much or too little assistance at the expense of the taxpayers. As it is, notwithstanding instances of hardship, and occasional periods and localities of too lavish expenditure, pauperizing the poor, the general operation of our system is to keep pauperism at a minimum, and to restrain undue outlay. The extension of the provision for settlement has made it necessary that the towns and cities should administer the increased expenditure thus thrown upon them with a better system and more strict supervision, especially of out-door relief, than before the civil war, and during the period of lavish outlay following the war. Yet of necessity, too, the cost of relieving the poor has lately increased out of proportion to the increase in their number. This increase of cost has been observed under other governments. It does not indicate extravagance, but better care, more thorough classification, and a more exact knowledge of the needs of the poor than formerly existed. In some cases, however, it is due to a want of care in dispensing charity. By the testimony of those who look with an eye somewhat unfriendly upon a few of the features of our Massachusetts system, it is still acknowledged to be the best in practical administration that exists in the United States among a population so dense as ours. This was the general sentiment at the recent Conference of Charities held in Boston; and this opinion finds expression among those who examine most impartially into the matter.

When first brought to the notice of the public authorities, of course all persons in need of relief are "out-door poor;" that is, they have not yet been admitted or committed to establishments for their custody and treatment. And a large part of the duty of this Board is to supervise the medical relief and temporary aid of poor persons who never become in-door poor at all in the technical sense of the term. In other words, they never go to an almshouse, a workhouse, a lunatic hospital, a school for poor children, or a foundling asylum; but are cared for in their own families, or at the

GENERAL CONDITION OF THE STATE ESTABLISHMENTS.

homes of their friends, or in public hospitals for the sick. This class of the poor, in any given year, is much more numerous than those who do enter the almshouses, lunatic hospitals, etc. The distinction, however, between the State poor who go to the State almshouses, and those who are aided outside, is not a very obvious one; and oftentimes the same person will obtain out-door relief for a while, either before or after a residence in the almshouse or in some hospital.

General Condition of the State Establishments.

The State establishments under the supervision of the Board are ten in number, as they were a year ago, — there having been no change in this respect, — and are as follows: —

The *State Lunatic Hospital*, Worcester; Superintendent, JOHN G. PARK, M.D.; including the *Chronic Asylum*, Superintendent, H. M. QUINBY, M.D. The *State Lunatic Hospital*, Taunton; Superintendent, J. P. BROWN, M.D. The *State Lunatic Hospital*, Northampton; Superintendent, PLINY EARLE, M.D. The *State Lunatic Hospital*, Danvers; Superintendent, W. B. GOLDSMITH, M.D. The *State Almshouse*, Tewksbury; Superintendent, THOMAS J. MARSH. The *State Workhouse*, Bridgewater; Superintendent, N. LEONARD, Jun. The *State Primary School*, Monson; Superintendent, GARDINER TUFTS. The *State Reform School*; Superintendent, JOSEPH A. ALLEN. The *State Industrial School*, Lancaster; Superintendent, N. PORTER BROWN. The *Massachusetts School for Idiotic and Feeble-Minded Youth*; Superintendent, EDWARD JARVIS, M.D., Dorchester; Assistant Superintendent, GEORGE G. TARBELL, M.D.

Most of these establishments remain without material change as to their extent and surroundings, although several of them have increased or diminished in the number of their inmates during the year. The *Idiot School*, however, has added to its extent by the purchase of a farm and farmhouse in Dover, near the town of Medfield, to which will be removed for support a portion of the inmates of the present establishment at South Boston. The *State Almshouse* has enlarged its hospital for women, and built one or two other structures within the year; the *State Primary School* has en-

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larged its hospital, and increased its water-supply by the building of a large reservoir; the *Worcester Hospital* has increased its water-supply for purposes of fire-protection; and the *Taunton Hospital* is erecting a large addition to its administration building, by which its water-service will be considerably increased. These are the principal changes in the buildings of the establishments; but most of them have also been improved in their internal arrangements. The special condition of each establishment will be separately given under its appropriate heading; but the general remark may here be made, that although some of them are too much crowded, and others, like those at Westborough, Bridgewater, and Lancaster, have become too large for the dwindling number of their inmates,—yet, upon the whole, these establishments never answered their purpose better than at present; regard being had both to the comfort of the inmates and the fidelity of the administration. The number of persons in all these establishments on the first day of October, 1880, was 4,369; on the first day of October, 1881, 4,402; on the first day of January, 1882, it was about 4,550. Of all these inmates, Oct. 1, 1881, 2,354 were males and 2,048 females. Of the males, 1,304 were insane; 570 were children, of whom 90 were idiotic; and most of the adult remainder were either sick or aged. Of the females, 1,546 were insane; 250 were children, of whom 60 were idiotic; and most of the adult remainder were either sick or aged. Of the whole number, both males and females, 2,850 were insane; 820 were children, of whom 150 were idiotic; and most of the adult remainder were either sick or aged.

The In-Door Poor of the State.

The in-door poor of the State, along with many other dependants, are supported in some of the State establishments above enumerated, to which they are sent generally upon the application, or with the consent of the local Overseers of the Poor. Once admitted there, they are visited by the Inspector of Charities and the Superintendent of In-door Poor; and the latter sends agents of his department to visit each establishment as often as may be necessary, who personally

THE IN-DOOR POOR OF THE STATE.

examines each inmate there received since his last visit, whose place of settlement, if any, is unknown. If, from information thus obtained, it appears certain that the expense of support, in a given case, is properly borne by the State, the information is made a matter of record simply; but, if it appears that such person has a settlement within the Commonwealth, the place of such settlement is notified. If such settlement is not acknowledged, measures are taken to ascertain definitely by what town the expense of his support should be paid, if not by the State. All the information thus obtained is put on permanent record; so that, if the person from whom it is obtained should return to the hospital or almshouse (or any members of the same family), all necessary information relative to his settlement up to the date of his discharge from the institution is in possession of the Board. It is seldom that the law is invoked in the disposal of these cases; for many days and even weeks are spent in obtaining the evidence necessary to satisfy Overseers of the Poor of their liability, thus avoiding the necessity of legal proceedings. In many instances it is extremely difficult to obtain any information, as in the case of lunatics found wandering about the streets of our cities, who have tramped or been transported into the State. But the importance of this branch of the work is apparent when we consider that such persons are probably to be supported for life at the expense of some community, which must so support them, or else ascertain what other community is more justly chargeable with this expense of their support.

Sane persons not settled in the Commonwealth, without suitable homes, or requiring hospital treatment, and not of sufficient means to provide for their own support, are cared for at the State Almshouse in Tewksbury. All such are sent to the almshouse, on permits signed by mayors of cities or Overseers of the Poor of towns, and, except children between the ages of three and fifteen, are retained there while their poverty or disability continues. Children between the ages of three and fifteen are transferred from the State Almshouse, with their mothers (if thus accompanied), to the State Primary School at Monson, there to be cared for, — the chil-

THE WORK OF THE BOARD IN 1881.

dren in the school proper, and their mothers at the establishment. In the fall and winter months it has been found necessary to transfer a part of the men, ordinarily sent to the State Almshouse, to the State Workhouse at Bridgewater.

Of all the persons (2,728 in number) admitted to the State Almshouse, and supported there during some portion of the year, 60 were found to have legal settlements in the State; 349 were removed from the State; and 1,034 were returned to their friends, not always at such friends' request; 102 were transferred to the State Primary School, and 254 were transferred for support at the State Workhouse.

The Work of the Board in 1881.

Turning now to the Board's work the past year, we find that the labors of the Departments of In-door and of Out-door Poor were largely increased during the year in each of their divisions. In respect to immigration, as already shown, there was an increase over the previous year of nearly 200 in the number of vessels bringing alien passengers to Boston, and of more than 10,000 in the number of such passengers arriving. In respect to transportation, the increase is also noticeable in the In-door Poor Department; the whole number removed from all the institutions during the year being some 600 in excess of the previous year, and from the lunatic hospitals alone 69 in excess. The transfers between the institutions exceed those of the previous year by more than 200. Again, in the finding of local settlements, this increase is marked. The number in the establishments for whom legal settlements have been found exceeds that of the previous year by more than 300, and the amount collected for their board is more than double that of any former year. The number of settlements found among the applicants for out-door relief by the State is also correspondingly large; but these do not result in the collection of money, since the payment in these cases must be made in the first instance by the cities and towns. The effect of the changes in settlement laws shows itself in the Department of Out-door Poor in the decrease of the number temporarily aided, which is less this year than ever before since the Tem-

THE WORK OF THE BOARD IN 1881.

porary Aid Law of 1877 was passed. This diminution of number, however, does not much decrease the work of the department, whose investigation must go on, whether the application for relief is granted or refused. There has been an increase in the number of the sick State poor for whose treatment in hospitals reimbursement is claimed, especially those in the City Hospital of Boston. The chief increase in the work of the Out-door Department has been in the care of foundling and deserted infants, however. In the visitation of other children the increase of labor is not so marked, though the whole number of visits made exceeds that of the previous year by some 300.

From a table in the Appendix, which exhibits at once the visitation of the State wards, and the disposal of juvenile offenders, it will be seen that there arose in the courts 1,462 cases of juvenile offenders of which the Board had knowledge. Of this number, 1,178 cases were attended by officers of the Board, the others being trivial cases where attendance was not necessary. These trials resulted in the commitment of 66 to the Reform School, 22 to the Industrial School, and 75 to the custody of the Board. Of the remainder, 68 were sent to local reformatories, making 231 in all committed; on some 27 per cent small fines were imposed; some 30 per cent were placed on probation, and about 18 per cent discharged. The rest, some 25 in all, were sent to prison. The number of cases appearing before the courts is somewhat less than in former years. Thus, in 1878, more than 2,200 cases are reported; in 1877, 2,419 cases; in 1876, 2,725 cases, which seems to have been the largest number ever brought before the courts. The return of better times appears to have had the effect of diminishing juvenile offences, and at the same time has made it easier to find places for children of this class. The number of cases reported has also been reduced by the fact that this Board no longer requires trivial cases to be reported by the courts.

The Superintendent of In-door Poor reports on the number and general condition of the children placed out in families from the State Primary and Reform Schools; and his report shows that the number in families is now smaller than

THE CHILDREN OF THE STATE.

it was 15 years ago, when the first computation was made. In October, 1867, the number of children supposed to be in families, who had gone out from the Monson establishment alone, was 759; and in October, 1870, 1,500 children from all the establishments were reported in places. At present the number of children actually in their places from all such establishments does not exceed 860; while in the establishments themselves the number of children is also much less than in 1870. Then it was 950; now there are hardly 600. Ten years ago there were probably 2,500 children in the State establishments, or in places outside; while now this aggregate does not exceed 1,500. In the city and town almshouses, and in the pauper and truant schools of Boston and other cities, there is a varying number of children, averaging apparently between 1,100 and 1,250. But this number, also, is considerably less than it was a few years since; the operation of our laws and of the State policy in regard to placing poor children in families having greatly diminished the children in all the public establishments taken together, as well as those in the State Reformatories, who have specially decreased.

Indians and Persons of Color (so called).

By the Acts of 1869, chap. 463, the final steps were taken for the emancipation of this exceptional class of our population, and merging them in the mass of citizens. Special provision was made in this Act for the relief or support of all such who might become destitute — through the Overseers of the Poor, if they had acquired a settlement, or by this Board if they had not — either in the State Almshouse or elsewhere at the Board's discretion. Though the legislation in their behalf is apparently plain enough; though they and theirs have lived on the same spot for generations, without public aid, as owners and tillers of the soil; though a fugitive slave from the South could at once proceed to gain a settlement in Massachusetts, notwithstanding his legal condition of servitude; though nine-tenths of them have a predominance of African blood, which certainly should secure to them, in this Commonwealth and by its laws, the same

BURIAL OF DECEASED STATE PAUPERS.

right to gain and hold a settlement as the white man, — the doubt is raised by some Overseers of the Poor that they have gained settlement by any process prior to 1869, because, it is said, they were then under guardianship. A controversy of this sort is now pending between Cottage City and Edgartown, in which the Superintendent of Out-door Poor was invited to appear for the State and the Indians. In the Appendix * will be found the statement made by him. Upon the final decision of the points involved depends the future status of these people as to settlement. On the whole, they have done well in the way of self-support since their emancipation; and during the past year only three "Indians so called" have applied for aid as State paupers. The Indian town of Gay Head, however, maintains but a precarious existence, and may be compelled to surrender its charter, in consequence of its small population and other unfavorable conditions.

Burials.

The Department of Out-door Poor is charged with the audit of bills for the burial of deceased State paupers, which involves the examination of their settlements, — a task much more difficult than in the case of the living, since important evidence is cut off by death. During the year ending Sept. 30, 1881, there were audited 1,207 such bills for the same number of persons. The amount of the claim was \$9,292.88; the amount of allowance was \$8,465.70. The deduction, therefore, was \$826.88, which was made for settlements found, or for overcharges. These bills were not all for the year 1881: indeed most of them were for 1880. The annual amount of such allowances will exceed the appropriation for 1881, and we have therefore asked for a slight increase of appropriation for 1882.

* See Appendix, pp. 100-103.

STATE POOR IN ESTABLISHMENTS AND ELSEWHERE.

II. — THE STATE CHARITIES.

Under this head may be given the general facts concerning the State establishments not already described, and also concerning the system of out-door relief now administered by the Superintendent of Out-door Poor. The origin of the State Almshouses, and of the compromise between the larger and the smaller towns, which led to their establishment, has been already explained. The fourth of these almshouses was the so-called hospital at Rainsford Island, to which, from 1854 to 1866, many of the sick State poor were sent for treatment. Under the compromise described, though the State Almshouses were kept full, and carried on at an aggregate cost of some \$150,000 a year, the cities and towns, after a few years, still relieved at home a majority of the State paupers found in their limits. To reduce this burden as much as possible, Overseers of the Poor would often send to the Rainsford Hospital or the State Almshouses persons in a dangerously sick and dying condition. This practice, together with the risk of spreading infectious disease thereby, aroused the Legislature of 1865 to enact the well-known Sick Poor Law, which, as it now stands revised in the Public Statutes, is as follows:—

[Chap. 86.]

SECT. 24. No city or town shall send to the state almshouse any person who by reason of insanity would be dangerous if at large.

SECT. 25. No city or town officer shall be allowed to send to the almshouse any person infected with small-pox or other disease dangerous to the public health, or any other sick person whose health would be endangered by removal; but all such persons liable to be maintained by the commonwealth shall be supported during their sickness by the city or town in which they are taken sick, and notice of such sickness shall be given to the state board, which may examine the case, and order the removal of the patient if it deems it expedient.

THE SICK STATE POOR.

SECT. 26. The expense incurred by a city or town under the provisions of the preceding section, after notice has been given as therein required, shall be reimbursed by the commonwealth, the bills for said support having been approved by the state board or some person designated by it, who shall make suitable investigation.

SECT. 27. Any mayor or overseer of the poor who knowingly offends against the provisions of section twenty-five shall be punished by fine of not less than fifty nor more than one hundred dollars.

This Act was a plain continuation of the old compromise. The Legislature agreed to give back to the towns, for the care of the sick State poor, just what it cost the State, on the average, for similar cases in its own hospital at Rainsford. Prior to this Act, the towns received nothing for the State poor aided at home: now they receive what, in a majority of cases where the sick are relieved without going to a State Almshouse, is the whole, or nearly the whole, of the cost.

The average expense of each patient at Rainsford during its whole continuance as a hospital was about three dollars a week; but, taking the most costly year of that period, the expense rose to six dollars a week in cases of recovery, and ten dollars a week in fatal cases. These sums, therefore, have been adopted for seventeen years as the maximum rates allowed to the cities and towns for the support of State paupers under the Act of 1865. The greater number of such cases are supported, however, at much lower rates; and hundreds of the State poor, not too sick to be carried to the single remaining State Almshouse at Tewksbury, are every year removed thither from the cities and towns. The other State Almshouses have been changed by law into the State Workhouse at Bridgewater, and the State Primary School at Monson; while the hospital at Rainsford was closed fifteen years ago. A few State paupers are still maintained at Bridgewater and Monson the year round; and during the winter at Bridgewater the number of State paupers temporarily supported in the almshouse department of the State Workhouse sometimes rises to several hundred.

THE OPERATION OF THE SICK POOR LAW.

OUT-DOOR RELIEF BY THE STATE.

The number of the State poor, who, previous to 1865, would have gone to one of the State Almshouses, and who are now supported or temporarily aided under the Sick Poor Law and the Temporary Aid Act of 1877, is greater than the whole number of annual admissions at Tewksbury and Bridgewater, although less in 1881 than for several years. Some account of the disposal of these numerous cases may here be given.

Processes under the Sick-Poor Law.

The first step under this Act of 1865 is the notice from the town, giving the name, locality, and disease of the patient, and calling for the intervention of the State. Such a prior notice is the condition precedent to any liability of the State, and no payment can be made to any city or town for any services rendered, or any donations whatever, before the day of mailing such notice. Overseers of the Poor often omit to notify at all, or, having written the notice, forget to mail it till the heaviest expenses have been incurred. Reimbursement in such cases is forbidden by law. The second step is a visitation of the patient by an officer of the Out-door Poor Department, whose first duty is to ascertain if the disease is correctly reported; then, if the patient is properly treated, and whether removal to the State Almshouse is safe or desirable; next, to investigate the personal history of the patient, that the responsibility for his expenses may be correctly placed; third, to examine the sanitary condition of the tenement and locality; and, finally, to return a full written report to the Board. If the case is protracted, he must repeat his visits till it is closed by recovery or death. If aid is rendered by the Overseers after convalescence, or when the patient is able to be removed, the State is relieved of further liability; the responsibility resting on the Overseers, and the expense falling on the town.

After visitation and report comes the audit of the bill, which involves a careful study of the officer's report and the statement presented by the Overseers. When both agree,

PROCESSES UNDER THE SICK POOR LAW.

the claim is settled at once; but, when there are discrepancies, the rights of all parties compel delay till these are adjusted. If this is found impossible, the town receives the benefit of the doubt. Finally, the Superintendent of Out-door Poor certifies the allowances to the State Auditor, and sends a written statement of the money due the town to the Overseers. These processes are simple and easily comprehended; but they involve much labor, and cost the State, perhaps, \$8,000 a year. If any should think them needless, it is to be said, in brief, that they have proved a complete check on imposture and fraud; that they drive from the State many paupers annually; that they keep out many more; that they assist the Overseers in the performance of their duty, and, with their concurrence, keep pauperism, both State and local, somewhere near its minimum. As evidence of this, the number of State paupers cared for by the Out-door Department does not increase, notwithstanding the growth of the State. But should we stop removals and discontinue the State supervision, not only the local paupers will re-assert themselves, but strangers will enter the State by thousands, and become a public burden.

The number of families applying for relief, under the Sick Poor Law, for the year ending Sept. 30, 1881, was 2,465, covering 8,496 individuals, of whom 2,744 were sick. They were resident in 173 cities and towns, representing every county in the State except Dukes and Nantucket. Beside these, there were 335 notices from the Boston City Hospital representing 335 sick persons; thus making in all 2,800 notices, covering 8,831 individuals and 3,079 sick persons, who received 6,511 visits from the officers of the department. The history and condition of each family have been closely investigated, and the results put on permanent record. For the support of this class the Legislature appropriated \$25,000 for the period covered by this Report, being an average grant of \$8.93 for each family applying, and of \$8.12 for each sick claimant. The number of bills thus far presented for the foregoing 2,800 cases is 1,316, with a claim of \$23,477.14, of which 858 have been audited. The claim on these 858 was \$11,313.69, or an average of \$13.18 each;

THE AUDIT OF TOWN BILLS.

while the allowance was \$7,066.88 or \$8.23 each, the average allowance thus exceeding the average grant by thirteen cents. The deduction of \$4,246.81 is due to settlements found for 49 families, covering 125 persons, and to illegal action or excessive outlay by the local authorities.

Four hundred and fifty-eight bills, amounting to \$12,163.45, awaited audit, and 1,484 bills had not been presented, on the 1st of October, 1881; but many of these have since been audited. As most of the claims are not forwarded during the year in which they accrued, the labor of auditing is confined mainly to the accounts of previous years.

The total audit for the sick State poor from Oct. 1, 1880, to Sept. 30, 1881, was as follows: —

The whole number of bills settled was	2,221
The amount of claim was	\$37,669 02
The amount of allowance was	21,970 25
The deduction was	15,698 77

The portion of the cost of the Out-door Department properly assignable to the sick poor was \$8,000, out of an appropriation of \$15,000 for the whole department. Some delay in auditing the bills for the sick State poor is unavoidable, and for two reasons: (1) This Board is authorized to reimburse the towns for State paupers only; if there is any doubt, it must first be removed, or else shown that the truth is unattainable. (2) Because every resident of Massachusetts has the right to gain a "lawful settlement;" the poor cannot pay for legal advice, and the official power of the Overseers may be used to prevent a "settlement." If, then, they claim a settlement, would it be right for State officers to prejudge the case, and class them as State paupers, without investigation? It is better that a bill should wait a long time, than that a poor man or a helpless widow should be deprived of a settlement to which they are entitled.

Temporary Aid. — Proceedings under the Act of 1877.

The Legislature in 1877 made further concessions to the towns as to the support of State paupers, but with the same caution that has accompanied all steps in that direction; pro-

TEMPORARY AID GIVEN BY THE STATE.

viding that the worthy poor, who were not chronic paupers and not likely to be, should have sufficient relief in periods of distress to bridge over the temporary difficulty, keep the family together, and save them from permanent pauperism. The time of relief was limited to four weeks, and immediate renewal of relief was refused; the amount given was confined to a sum barely sufficient, in addition to the family earnings and private gifts, to provide the absolute necessities of life; the sick were excluded, as being otherwise assisted; and, finally, this Board had full power to refuse aid altogether, and to order applicants sent to the State Almshouse at its discretion. The result has justified the action of the Legislature, though cases occasionally occur where greater liberty of relief is desirable. There is a constant pressure to exceed the time permitted by the law of 1877; to give chronic paupers its benefits; to secure double aid for the same family under the two Acts providing for the sick and the well; and, finally, to stock a family with fuel and supplies for a whole season under the guise of four weeks' aid. The law as administered has conferred many benefits upon the worthy poor, has cheered, encouraged, and thereby saved thousands, who have never called for aid again, from degradation and permanent pauperism. The Act alluded to is as follows, in the Public Statutes (chap. 84, sect. 18):—

A city or town may furnish temporary aid to poor persons found therein, having no lawful settlements within the state, if the overseers of the poor deem it for the public interest; but, except in cases of sickness, not for a longer period than four weeks at one time, or to a greater amount than one dollar a week for each person, or five dollars a week for each family; and the overseers shall in every such case give immediate notice by mail to the state board of health, lunacy, and charity, which board shall examine the case and direct as to the continuance of such aid, or removal to the state almshouse, or to some place out of the state, either before or after removal to the state almshouse, according to law. A detailed statement of expenses so incurred shall be rendered, and, after approval by the state board, such expenses shall be paid from the state treasury.

An inspection of the bills under this law, for the last two years and half, proves clearly that the average judgment of the Overseers of the Poor throughout the State has deter-

STATISTICS OF TEMPORARY AID.

mined that from \$6 to \$8 for four weeks is the sum necessary, in ordinary circumstances, to carry a family through its exigencies. We have therefore taken that judgment as the basis of audit, allowing a larger sum only in cases of evident emergency, such as a very large family, permanent disability in one or more members, recent widows with young children, immigrants newly arrived destitute of every thing, or total inability to procure employment. Thus administering the law, we find that an average annual appropriation of \$16,000 is ample to relieve those for whom it was intended, and to remove from the State those who belong elsewhere. The applications are relatively decreasing, and only 1,577 were made last year from a population of more than 1,800,000; showing as we think, that this law, properly administered, can accomplish its intent without the mischief apprehended by some.

The number of families relieved for the year ending Sept. 30, 1881, was then 1,577, covering 6,293 persons, who were resident in 123 cities and towns, in all the counties except Dukes and Nantucket. These families received 2,010 visits from the Superintendent of Out-door Poor and his officers; and the mass of information thus gathered and recorded, with that obtained as to the sick poor, will give an accurate and continuous annual history of the out-door pauperism of the State. The appropriation for this class for 1881 was \$14,000, or an average of \$8.87 for each family. Of the above 1,577 claims, 904 bills for support have been audited, of which 865 have been paid and 39 have been rejected, for "settlement" or other sufficient cause. The claim for these 904 families was \$4,721.60, being an average of \$5.22 per family; the allowance, \$3,853.20, or an average of \$4.26 per family. And the number of persons provided for by this moderate sum was 3,614. 282 bills of transportation have been paid at a cost of \$2,283.05 or \$9.84; 67 bills still await audit: the remainder have not been presented, and a large proportion never will be. The portion of the appropriation properly assignable to this sub-department for salaries and expenses is \$3,000.

In the Appendix will be found the location, by counties, of

THE STATE ALMSHOUSE.

the temporary poor by families, which average for the present year $3\frac{99}{100}$ persons to each family.

THE TEWKSBURY STATE ALMSHOUSE.

Trustees. — W. R. SPAULDING, Lawrence; F. H. NOURSE, Winchester; GEORGE P. ELLIOTT, Billerica; ELLEN S. S. HAMMOND, Boston; Miss EMILY F. POPE, M.D., Boston.

Superintendent. — THOMAS J. MARSH.

This has been for many years, and perhaps ever since it was opened in May, 1854, the establishment of largest population in Massachusetts. Its average number of inmates for some years has exceeded 900; and its buildings, originally no larger than those at Bridgewater, have been extended until more than half the inmates are now lodged outside the main structure, which was built in 1853-54. Of the present inmates, about a fourth part are constantly on the sick-list. Among the hospital cases there during the year 1881 has been an unusual number of lying-in women; the number of births reported at the State Almshouse having been 113, or more than ever before. In all, the resident physician reports 1,630 hospital cases, involving 1,380 persons; and, since the whole number of persons during the year was only 2,728, this report, if correct, shows that nearly half the inmates came under hospital treatment within the year. Of these cases, 78, involving 75 persons, occurred among the insane inmates of the lunatic asylum connected with the almshouse. This indicates that the insane were less sickly than the sane: for, while one insane inmate out of four came into the hospital, only one in 55 died; of the sane inmates more than half entered the hospital, and one in every $11\frac{1}{2}$ died. The inmates of the State Almshouse are mostly infirm, invalid, or insane persons, needing medical care and nursing; but in winter a class of able-bodied men seek admission there, who do something by their labor to reduce the cost of their maintenance. A few of the insane, also, are able to labor on the farm, which is large and under good cultivation. The changes in the law of settlement, already mentioned, have had the effect to reduce the proportion of women among the sane inmates far below that of the

THE STATE WORKHOUSE AT BRIDGEWATER.

men, and this disproportion of women seems likely to continue. Taken in connection with the fact that an increasing number of the sick and the insane have been admitted of late years, this change increases the cost of carrying on the almshouse, because more persons must be hired than were formerly sufficient to do the work of the establishment. The better diet and greater care provided for the sick and the insane has also added to the yearly cost at Tewksbury, which is this year greater than ever before. A portion of this cost, however, is due to extraordinary improvements, which should properly be charged to construction account; and another portion may be ascribed to the lack of a proper system of storing and distributing the supplies purchased. What is called a *silo* has been tried this year at Tewksbury on a large scale, and at the Industrial School in Lancaster in a smaller way. We shall soon see by experience what the profit may be; but much advantage is hoped from it by experienced farmers. Should these silos prove useful, it will be well to build others at Monson, and wherever else a large stock of milch cows is kept on the State farms.

THE STATE WORKHOUSE AT BRIDGEWATER.

Trustees. — J. WHITE BELCHER, Randolph; JOSHUA E. CRANE, Bridgewater; Mrs CATHARINE P. LOTHROP, Taunton; Mrs. ANNIE FIELDS, Boston; WEAVER OSBORN, Fall River.

Superintendent. — NAHUM LEONARD, Jun.

The workhouse (opened in 1866 in the almshouse buildings) was designed to fill a place in our system of charities intermediate between an almshouse and a prison, and such a place it still holds. But the law of 1866, creating special courts at the State Almshouses for the sentence of inmates to Bridgewater, was gradually modified, and finally repealed in 1879: so that it is no longer feasible to transfer from Tewksbury to Bridgewater, under a sentence, the vicious poor who are first received in the State Almshouse, and with whom formerly the State Workhouse was filled. Under the modified settlement laws, many persons of this class are no longer sent to the almshouse, but are provided for by the cities and towns of their settlement. The local courts send some of

THE STATE WORKHOUSE AT BRIDGEWATER.

the vicious poor to Bridgewater; and it is these commitments, and those arising under the Tramp Law of 1880, which now supply the State Workhouse with its prisoners. Occasional transfers of paupers from Tewksbury are also made, these persons being sent as ordinary almshouse inmates, and not held under sentence. The almshouse inmates generally prefer Tewksbury to Bridgewater as a place of residence, and do not remain so long at the workhouse as they probably would at Tewksbury. The Tramp Act, which authorized the sending of persons convicted under it to Bridgewater, has not yet had the effect of increasing materially the number at the workhouse, as was expected, and it has been found expedient in 1881, as in the year preceding, to send to Bridgewater, after a nominal admission at Tewksbury, a large number of the men partially able-bodied who apply for aid in Boston during the autumn and winter months. The presence of a few sentenced women in the State Workhouse, chiefly persons transferred thither from the Sherborn Reformatory Prison, has prevented the full use of the buildings at Bridgewater for these winter inmates; and the Board has been asked to have these women transferred or discharged, leaving the whole establishment to be occupied by men alone.

Late in the year 1880 the Board examined the contract and plans of the Trustees of the State Workhouse for additional protection of their buildings against fire; and these plans and specifications, as verbally proposed by the Chairman of the Trustees, were approved by the Board, and the work was done subsequently; but not in all respects according to the understanding upon which this Board acted. It was found upon trial that the new cisterns containing the additional water-supply were not properly constructed, and it has been necessary to repair these during the present year. It was also found that the time necessary to raise steam in the boiler for pumping the water from these cisterns was too long; and measures have been taken to make the pumping apparatus more reliable for immediate use. At present the new cisterns are filled with water, and it has been found by trial that streams of water from three hydrants can be thrown on any

THE STATE WORKHOUSE INMATES.

part of the workhouse buildings within seven minutes from the time that the engineer, or other person in charge of the fire service, hears the alarm of fire. Under these circumstances the Board would report that the State Workhouse now appears to be reasonably well protected against fire; but the delay in completing the work seems to indicate that the execution of the contract was not so carefully supervised as it should have been. In the corresponding case of the new reservoir at the State Primary School, there has also been a delay in completing the work; but the water has been in use there for nearly a month, and the institution has suffered no inconvenience by the delay.

The exact place which the Bridgewater establishment ought now to fill in the system of State charities and corrections is not so easy to determine as it once was. When changed from a mixed almshouse to a workhouse in 1866-67, the plan of separating the vicious poor from the more innocent worked well, and had some effect in keeping pauperism down. It is not now so easy as it then was to make the needful separation, though this is done to some extent by the Tramp Act of 1880, and by the action of local courts which sentence the vicious poor to Bridgewater. It may be that a special court in Boston for the trial of persons who, if found guilty of misdemeanors, should be sent to the State Workhouse upon long sentences, would have the desired effect in weeding out the vicious and vagrant poor, who, since the Tramp Act was passed, have more and more accumulated in cities. It is also clearly advisable that the few women at Bridgewater should be discharged, or transferred to the Woman's Prison, and the large space occupied by them made available for men who may come in as paupers from November 1 to May 1, unless a part of the women now at Tewksbury be sent to Bridgewater. It is not expedient that the workhouse department should be closed, until some other provision is made for sentencing the vicious poor.

THE STATE PRIMARY SCHOOL AT MONSON.

The buildings of this establishment, except the hospital and the playrooms in the south yard, were originally con-

THE STATE PRIMARY SCHOOL AT MONSON.

structed and used for a State almshouse, which was opened in May, 1854. Monson, however, early received a preponderance of children among its pauper inmates; and in 1866 it was changed by law into a State school for young children. It formerly contained about 600 paupers,—now but about 20 of that class, and in all less than 450 inmates, chiefly children. The plan of boarding out the younger children, begun a year ago, has succeeded well so far as tried, but has not been carried out to any great extent. It is the opinion of this Board that a large number of the children now in the Primary School, below the age of eight years, can be boarded out; and we shall offer on a subsequent page a plan for so doing.

The general arrangements of the Primary School are now satisfactory, so far as the structure of the old buildings, designed originally for an almshouse, will permit, and the management of the school can be commended in stronger terms than at any period during its existence. The children are better fed, better clothed, and taught in schools which are better graded than has generally been the practice; the hospital contains fewer cases of illness; and the invalids are better nursed than formerly. A spirit of kindness and natural freedom, such as properly belongs in an establishment for young children, is noticeable everywhere. There are few elopements; and, although the children generally desire and ask to have places found for them in families, this is not because they are ill-treated in the institution, but because all the influences at the Primary School now favor the placing out of its pupils. The whole number of persons at the Monson establishment during the year ending Oct. 1, 1881, was 648, of whom 244 appeared as admissions during the year; but, of these admissions, only 183 were new comers, and only 103 of these were children admitted from the State Almshouse at Tewksbury; while 60 were children committed by the courts to the custody of the Board and temporarily placed in the Primary School. The average number of children and adults maintained at Monson during the year was 423.5, besides which seven children were constantly boarded outside, and paid for from the current appropriation. The

THE STATE PRIMARY SCHOOL AT MONSON.

whole number of children present during the year was about 600. Two children were born and four died at the establishment during the year. The average weekly cost of each child maintained was nearly \$2.25, or about the same as the cost of the insane inmates at Tewksbury, and considerably less than the cost of pupils either at Westborough or Lancaster. The sum mentioned is less than the average weekly cost in the reformatory and charitable schools named in Table XXV. of the Appendix, and about the same as in the local reformatories and truant-schools mentioned in the same table.

The pupils in the Monson Primary School, though they have never had so large an expenditure made for their benefit as has been given to the sentenced boys and girls at Westborough and Lancaster, have better deserved it; for their only occasion of dependence has been poverty. The Primary School has now twice as many pupils as the two State Reformatories, and these pupils enter earlier and continue longer in the care of the State. They are therefore more susceptible to good influences, and capable of being trained more easily to become good citizens. But one great means for such training is the good influence of a family home, to which they should go as soon as good homes can be provided. This is the present policy of the State, and it has the cordial support of this Board.

WHO ARE THE CHILDREN OF THE STATE?

III.—CHILDREN OF THE STATE.

Under this designation will be included the juvenile offenders committed by the courts either to the State Reformatories or to the custody of this Board; the children of the State poor who enter the almshouse at Tewksbury; and the foundling and deserted infants who are provided for in the Massachusetts Infant Asylum at the expense of the State, or taken charge of directly by the Department of Out-door Poor. The last-named class, however, will be treated by themselves, their situation being peculiar and different in most respects from that of the older children of the State, who are enumerated in a table soon to be given.

Juvenile offenders, when sentenced by the courts, may go to some local reformatory or prison; but if not, and if they come into the custody of the State, they may be taken in charge either by the Board of Health, Lunacy, and Charity (in which case many of them go temporarily to the State Primary School, both boys and girls), or they may be sent, if girls, to Lancaster, and, if boys, to Westborough, to enter the State Reformatories. From all these establishments they go forth into families, it being the policy of the State to find them good homes as soon as possible. The children of the poor who enter the State Almshouse are transferred, as above mentioned, to the State Primary School at Monson; but a few very young children, with their mothers, remain at Tewksbury; and some of the older boys and girls also, either because their stay in the almshouse is likely to be short, or because they are reckoned unfit subjects for the Primary School. The number of such children in the State Almshouse on the 1st of October, 1881, was 79; the whole number during the year may have been 225.

With so many establishments belonging to the State, or

CHILDREN OF THE STATE.

managed by cities, counties, and private charitable associations, to which young children may be sent even when guilty of offences, it seems improper that any child under the age of fourteen should be committed to a prison, except for some peculiarly heinous offence. The practice of sending boys of tender years to jail in default of bail, or on sentence for slight offences, should be discontinued. As a temporary expedient the agents of the Board have been instructed, in all cases where bail could not be furnished otherwise, to offer themselves, and to have a care that the child be present before the proper tribunal at the proper time. But the evil may be permanently cured by legislative enactment, providing that hereafter in this Commonwealth no child under fourteen years shall be committed to any jail or house of correction, or to the State Workhouse, or the Boston House of Industry, except in case of commitment to jail for atrocious offences, like that of the boy Pomeroy a few years ago.

TABLE C.—*Children of the State, Oct. 1, 1881.*

ESTABLISHMENT.	Boys.	Girls.	Totals.
<i>State Primary School.</i>			
At the establishment	300	114	414
In families	193	121	314
Total	493	235	728
<i>State Reform School.</i>			
At the establishment	142	—	142
In families	267	—	267
Total	409	—	409
<i>State Industrial School.</i>			
At the establishment	—	55	55
In families	—	97	97
Total	—	152	152
Total belonging to the three schools	902	387	1,289
Add "Board children" in families	143	39	182
Aggregate	1,045	426	1,471

CHILDREN OF THE STATE IN FAMILIES.

Of these there are in families 460 boys and 218 girls (in all, 678), to which number should be added the children placed in the custody of the Board who are in homes; viz., 143 boys and 39 girls (in all, 182). Eighty-three other children, committed to the custody of the Board (66 boys and 17 girls), were in the Primary School on the 1st of October, and are included in the 414 given above. It will be noticed that the number of these children outside the schools (in round numbers, 1,000) is considerably greater,—indeed, almost double the number in the schools (in round numbers, 600). This is as it should be, since the best place to have the most of them is a good family home; and even a poor home is sometimes better than an institution.

There were at the State Reform School, Oct. 1, 1880, 194 boys; committed thereto during the year by various courts and magistrates, 66 boys, and by the Board, 5 boys,—making a total of 265 boys in that institution during the whole or a portion of the year. There were at the State Industrial School, Oct. 1, 1880, 71 girls; committed thereto during the year by courts and magistrates, 22 girls, and by the Board, 7,—making a total of 100 girls in that institution during the whole or a portion of the year. Of the 265 at the Reform School during the year, 116 were successfully placed with friends or in families; and, of the 100 in the State Industrial School, 60 were similarly placed, leaving but 40 of such girls in the school Oct. 1, 1881; to which, however, should be added 15 girls placed out in previous years, returned and remaining in the school at the end of the year. Of the Board children placed in the State Primary School during the last and previous years, 39 boys and 4 girls were successfully placed with friends on probation or in families during the year; and, of other children in that institution, 91 boys and 41 girls were similarly placed. To the children placed out (1,303 in all), 1,615 visits were made; and 926 special investigations of the character and suitability of homes, of applications for children, or of the conduct of children placed out or on probation, were also made.

Some special difficulties attending the placing and management of boys released from the Primary and Reform Schools

CHILDREN OF THE STATE IN FAMILIES.

may be mentioned. During the earlier years of the Reform School, many of the older boys were shipped in the marine service; but this opportunity has been practically closed since the sale of the school-ships, and the abolition of the Nautical School in 1872. Few successful attempts have been made to place boys at trades or in manufactories; and this failure seems to be consequent upon the discontinuance of the system of apprenticeship in vogue twenty-five years ago. Notwithstanding this, no reason appears why an effort should not be made to place boys of a suitable age in some of our numerous manufactories, now that the Trustees of the State Primary and Reform Schools are willing to use a portion of the Lyman Fund to pay the board of such boys for a short time, or until, with reasonable diligence, they can make themselves sufficiently useful to command wages that will support them. If the manufacturers of Massachusetts would interest themselves in such a measure as warmly as their wives have in finding places for poor girls, places might soon be found for all boys adapted to such employments; and, if this plan should succeed, many of the difficulties now attending the disposal of the older boys would disappear. To place a boy whose early years have been spent in the whirl of city life at Fall River, Lowell, or Lawrence, on a farm in a rural town of Massachusetts, is, in many cases, simply an invitation to elope; for all boys cannot be made farmers, any more than all can be made sailors. To place boys and retain them in place, occupations must be found adapted to their wants and capabilities. It is not sufficient to find an occupation, unless it be such as a judicious parent in similar circumstances would think suitable for his own child. Less than this is a failure in placing, which must, in a majority of cases, injuriously affect the future of the child. When once the importance of this matter is brought home to the mind and conscience of the people, a demand will be made for more careful placing; but those who make the demand must assist in the work: there must be concert of action on the part of the entire community.

In July last Miss E. C. Putnam, a Trustee of the State Schools, one of the Board's auxiliary visitors, read a paper

VISITATION OF THE CHILDREN OF THE STATE.

before the National Conference of Charities, containing much information relative to the visitation of girls, and the difficulties attending the work of the ladies who act as volunteer visitors. Difficulties of a similar nature occur with regard to the visitation of all the children of the State; and this work, though as a whole it has been well done, might be improved.

Especially is this true of the visitation of boys, — nor can it be otherwise without a larger force than is now employed in that labor. It must be apparent that the official visitors, with their time largely occupied by attendance on courts, and clerical labors, can find but comparatively little opportunity to visit a thousand children scattered throughout New England, many of whom require several visits each during the year, and several transfers also from one place to another, without a return to the institution, before they can be suitably located. To fairly entitle us to the encomium already received for the success of this work, the people of Massachusetts should make this supervision of their State children as thorough and as intelligent as circumstances will permit.

It is gratifying to learn that the Massachusetts system of caring for its juvenile offenders, and providing for the wards of the State (organized by the Board of State Charities, and developed and broadened by the present Board), is receiving attention from other communities, and especially from that of Great Britain. Yet the fact must not be lost sight of, that this system is short of perfection, and that this Board has not the necessary legal authority to remedy some obvious defects, more particularly in regard to the State wards who are at home on probation, or placed in families, or successful elopers. Whilst the Trustees of the State Primary and Reform Schools should retain their present authority over the children committed to their custody, or perhaps have enlarged powers, the control over such children in the community should be vested in the Central Board, who alone should decide whether or not their welfare and the interests of the public require their return to the institution from which they were placed out. Especially is this true in case of successful elopers, who have shown by their subsequent

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conduct that they are no longer disposed to prey on the community, but, on the contrary, are disposed to provide for themselves and perhaps to assist their parents. At present all such children, when their whereabouts are ascertained, are compelled to return to the school from which they escaped, no matter how they may be situated, or how well they are doing,—no matter how much the community or the children may suffer by such return. The reason given for this is, that otherwise the discipline of the school would suffer; but this is not sufficient, even if the discipline would in fact be affected by permitting the boy to remain in his new home. A boy with energy enough to make his way, under many difficulties, to a strange place, and there find remunerative employment, with an honest determination to make his own living, is to be encouraged, not punished. But it is not true that the discipline of the school would be injured by not returning the boy, otherwise than by revealing the fact that the judgment of the Superintendent or Trustees was in fault in not having previously discharged him. Yet a boy returned under such circumstances is often ruined. Perhaps for the first time in his young life he had manfully determined to set his face against all evil associates, and to redeem the past, when he suddenly encounters a period of deep disgrace, and is so exasperated that any prospect of future reform is out of the question.

The actual location of the older children of the State, by counties in Massachusetts, and by States in the rest of New England, will be found in the following statement, from which it appears that 871 children—viz., 606 boys and 265 girls—are in families, and more than six-sevenths of them in Massachusetts families. This excess of 11 over the number (860) given on p. clii is because *eleven* children from almshouses are included in the larger total.

LOCATION OF CHILDREN OF THE STATE.

TABLE D.—*Location of Children.*

	Whole Number.	Boys.	Girls.	Number of Towns.
In Berkshire County . . .	37	30	7	13
Franklin County . . .	34	24	10	17
Hampshire County . . .	55	39	16	18
Hampden County . . .	90	68	22	19
Worcester County . . .	119	82	37	34
Middlesex County . . .	103	64	39	24
Essex County . . .	86	68	18	15
Suffolk County . . .	85	54	31	3
Norfolk County . . .	13	7	6	7
Plymouth County . . .	21	14	7	12
Bristol County . . .	42	35	7	8
Barnstable County . . .	14	6	8	7
Dukes County . . .	7	7	—	1
Nantucket County . . .	—	—	—	—
Total in Massachusetts . .	706	498	208	178
In the State of Maine . . .	4	4	—	4
of New Hampshire . . .	47	31	16	26
of Vermont . . .	15	12	3	8
of Rhode Island . . .	3	2	1	3
of Connecticut . . .	90	58	32	38
Outside of New England . .	6	1	5	5
Total in other States . .	165	108	57	84
In confinement or in places un- known Oct. 1, 1881 . . .	—	100	25	—
Total . . .	—	706	290	262
Aggregate . . .	—	996		—

Further information concerning these children will be found in the Appendix, and certain recommendations respecting them and the foundling children appear in Part Fifth of this Report.

THE MASSACHUSETTS SYSTEM FOR FOUNDLINGS.

FOUNDLING AND DESERTED INFANTS.

This class of the poor — the most destitute and helpless of all — are now provided for in families, and not at the State Almshouse as formerly. A considerable number of them are taken in charge by the Massachusetts Infant Asylum; but even these are seldom kept in any great number at the asylum itself, but are boarded in families as soon as possible. This part of the Board's work comes under the direction of the Superintendent of Out-door Poor, and has been very thoroughly organized by him since the passage of the Act of 1880, allowing the Board to take direct charge of such infants.

The laws of Massachusetts, and their administration in regard to this class, are peculiar, — differing, as a whole and in their parts, from the legislation and the practice of other States and countries. They are a necessary preliminary to her policy in the care of the older unfortunate or criminal children, which is declared by the Howard Association of London to be “probably the best system in the world, as tested by results,” — with the added conclusion that “there is only *one* foreign land, the State of Massachusetts (still, as formerly, a pioneer of progress), the experience of which can afford Great Britain any very decided lessons in the direction desired.” But that policy could not be perfected without systematic provision for a class of infants for whom nobody appears as sponsor, and from the survivors of which class the ranks of disorderly and dissolute youth are recruited. The Massachusetts method of dealing with infants prevents a useless waste of human life. It checks materially a system of indirect murder, under which hundreds of infants have perished annually. It had somehow been accepted as inevitable that foundlings must die, especially if illegitimate. And they have died, year after year, till the number is counted by thousands.

After years of effort and careful experiment, it was found impossible to save the lives of the foundlings sent to Tewksbury. At the same time, the large number found dead in Boston and its vicinity, and the great mortality among this

FOUNDLING AND DESERTED INFANTS IN MASSACHUSETTS.

class in that city, attracted public attention, and some action was desirable. Accordingly the Board of State Charities prepared, and induced the Legislature of 1867 to pass, an Act incorporating the Massachusetts Infant Asylum. This was followed in 1870 by a supplementary Act, placing the infants, legally committed thereto, in the custody of the State Board, and defining the manner and rate of their maintenance. The Inspectors and Superintendent at Tewksbury were advised in 1878, and earlier, to receive no more foundlings, but rather to include such in the class covered by the Act of 1865, as "persons whose health would be endangered by removal." They finally acted on this advice in 1879, and the foundlings were sent in large numbers to the Infant Asylum, the capacity of which was soon exceeded; whereupon the Legislature of 1880 provided as follows:—

"Whenever the Massachusetts Infant Asylum is full of inmates, or when from sickness or other sufficient cause it is not expedient to receive or retain any infant legally committed thereto, said infant being a State pauper, it shall be the duty of the State Board of Health, Lunacy, and Charity to provide for such infant in a proper family, or other suitable place, under the constant supervision of its medical officers, till it shall reach the age of two years, or is otherwise provided for by said Board under existing laws."

Upon notice to the State Board from Overseers of the Poor, or otherwise, all suitable infants are to be sent to a Receptacle in Boston, provided by the Infant Asylum. They are there examined by its physicians, and, if approved, are sent to its establishment at Jamaica Plain, where the number on hand at one time is seldom allowed to exceed eight or ten. They are there wet-nursed, if possible, for a period, and then transferred to families in the country, where they are reared, under the supervision of ladies connected with the asylum, till two years old, unless they are previously adopted or otherwise disposed of. The asylum also maintains a branch at West Medford, to obviate any danger from excess of numbers in its main establishment.

Those rejected by the physicians, and the infants too feeble or diseased to be offered for their inspection, are

 THE MASSACHUSETTS INFANT ASYLUM.

placed, according to the law of 1880, in suitable homes under the care of the medical officers in the Department of Out-door Poor. These homes are selected in several counties, and in as many towns as possible,—generally those towns which have not been pre-occupied by the Infant Asylum in its system of boarding out infants.

The care of the children directly provided for by the State, under the Act of 1880, has been exercised chiefly by two medical officers of the Department of Out-door Poor, Dr. Edwin F. Cummings and Dr. Sarah M. Crawford, whose experience, acquired in hospitals and in general practice, has enabled them to bring back many of these infants from threatened death to healthy life. Considering the condition of the class of infants of whom they took charge, their success is as remarkable as that of the Infant Asylum, and was more unexpected. In both divisions of this work, however, the records of the year ending Oct. 1, 1881, are worthy of notice. At the Infant Asylum, and under the direct care of the Board, 233 infants were treated as follows:—

Infant Asylum.

	INFANTS.
Number remaining in the Asylum Oct. 1, 1880	73
Since admitted to the Asylum	42
In all at the Asylum	115
Of these there were discharged well	31
There died	15
Remaining Oct. 1, 1881	69

The percentage of mortality among these 115 selected children was lower than that of infants in ordinary families; viz., 13.04. Nine of the deaths occurred, as many of these deaths naturally occur, in August and September, and only six in the rest of the year.

The infants taken in charge by the Board directly were during the same year, 118, all of whom, as above mentioned, were placed in families under the care of the Department of Out-door Poor; and the results of the year were as follows:—

 THE CARE OF OUTSIDE FOUNDLINGS.

Outside Foundlings.

Infants remaining Oct. 1, 1880	34
Since taken in charge by the Board	84
In all	118
Of these there were discharged well	28
There died	30
Remaining Oct. 1, 1881	60

The percentage of mortality among this inferior class of infants was, of course, greater than among the asylum infants; viz., 25.42. Twenty-four of the deaths occurred in July, August, and September, and only six in the nine remaining months. In all, the State cared for 233 infants of both classes; and the percentage of mortality among all who were cared for, within and without the asylum, was 19.32; only 45 known deaths occurring among 233 infants less than two years old. That is to say, less than twenty per cent of all the infants thus cared for are known to have perished; and most of those who died were so diseased when received, that it seemed improbable they could survive, while many revived whose chance of life at first seemed small. This is an encouraging result, especially when it is remembered that, under the practice prevailing before 1867, nearly all such infants died within their first year, and that more than half of them died previous to 1880. Comparing the rate of mortality, the past year, among these infants, with the common rate among children of all kinds under one year of age in the Massachusetts cities and towns, we find the comparison favorable to these waifs of the State. In Lowell the death-rate among all infants has been 23 per cent; in several other cities it has exceeded 22 per cent.

The success here mentioned has not been accomplished without great labor, unceasing watchfulness, and unusual expense; but this has been necessary, if we would relieve the State from the reproach often cast upon it for the many deaths of these infants in the almshouses, in city boarding-houses, and wherever "baby-farming" prevailed.

Following natural laws, which prescribe for one infant the care of one woman, — retaining few in their commodious

THE FOUNDLING CHILDREN OF THE STATE.

buildings, and supplying those few with wet-nurses when possible,—the ladies who manage the asylum have placed all the rest in suitable families, where they were under the oversight of medical visitors, and where they received tender care and a vigilant supervision. Consequently, most of those infants, since this system was adopted about ten years ago, have been saved; and probably two-thirds of all the infants received since the asylum was opened (nearly 1,100 in all) are alive to-day. It cannot be expected that the same will be true ten years hence of the rejected infants, directly cared for by this Board; but the results attained since April, 1880, are probably no better than we may look for hereafter, should the same care and vigilance be exercised by the State authorities.

The cost of supporting these 233 foundling and deserted infants during the year ending Oct. 1, 1881, has been about \$23,000, or about \$100 each, without reckoning the salaries and travelling expenses of the medical visitors of the State. Of this cost, about \$14,500 has been paid to the Massachusetts Infant Asylum for an average of nearly 70 infants during the year, and \$8,500 for an average of about 55 infants directly cared for by the Department of Out-door Poor. Allowing \$1,500 as the cost of medical visitation for these infants, the average weekly expense of each during the year was about \$3.50 for those under the direct care of the Board, and about \$4 each for those in the Massachusetts Infant Asylum. That is to say, the State now pays less than \$25,000 a year to save the lives of more than 180 infants, where formerly it paid \$10,000 a year to save the lives of only a few such infants.

ESTABLISHMENTS FOR THE CHILDREN OF THE STATE.

These are five in number; namely, the State Primary and Reform Schools at Monson, Westborough, and Lancaster, the Idiot School at South Boston, and the Massachusetts Infant Asylum in a suburban district of Boston, with a branch at West Medford. Mention has already been made of the State Primary School in speaking of the State Charities; and the Infant Asylum has also been mentioned, but may next be

THE STATE PRIMARY AND REFORM SCHOOLS.

described with reference particularly to its buildings and internal arrangements. The State Primary and Reform Schools are owned by the Commonwealth; the Idiot School and Infant Asylum are owned by corporations and aided by the State,—the Idiot School by a definite yearly appropriation, without regard to the number of pupils, and the Infant Asylum by payments for the board of State wards maintained by the asylum. These payments for the last three years have averaged about \$14,000 annually, and the appropriation for the past year was \$15,000. The annual appropriation for the Idiot School has lately been \$17,500, which is more than three-fourths of the annual income of the school, while the payments of the State to the Infant Asylum bear about the same proportion to its current income. The expenditure by the State at the Infant Asylum has been less than \$14,000 in the calendar year 1881.

THE STATE PRIMARY AND REFORM SCHOOLS.

These institutions are under the charge of a consolidated Board of Trustees, as follows:—

SAMUEL R. HEYWOOD, Worcester; Mrs ANNE B. RICHARDSON, Lowell; HAMILTON ANDREWS HILL, Boston; Miss ELIZABETH C. PUTNAM, Boston; MILO HILDRETH, Northborough; THOMAS DWIGHT, M.D., Boston; LYMAN BELKNAP, Westborough.

The three establishments at Monson, Westborough, and Lancaster, have been since July, 1879, under the control of this Board of Trustees, who have employed the two years and a half that have intervened in correcting abuses and neglects which had become inveterate at Westborough, in re-organizing the industries at Lancaster, and reducing the cost at both the State Reformatories. This reduction has been great, and would have been still more if the buildings at Westborough and Lancaster could have been exchanged for more suitable ones. The yearly appropriation has been diminished for these two schools from \$90,500 (which was voted in 1878) to \$58,535 in 1881; and even this smaller sum not wholly expended, although there is a deficiency of \$1,367.18, at Westborough.

There remains at the end of the calendar year 1881, a

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surplus of \$2,413.15, of the Lancaster appropriation, which, deducting the Westborough deficiency, makes the surplus at both schools only about \$1,046. Table XXV. in the Appendix shows the yearly outlay at these two reformatories since 1854. For 1882 the appropriation can apparently be made smaller than at any time since 1855, when it was about \$45,000; the necessary current expenses for the coming year, in our opinion, not being more than \$40,000 for an average number of 200 boys and girls. The present number is less than 170 in both schools, and there is no reason to suppose it will average above 200 in 1882.

The diminished cost in recent years is owing to the greatly decreased average number of pupils, who have steadily diminished for a long time, and are now only about one-fourth the number that was found in the State Reformatories fifteen years ago. On the 1st of October, 1866, there were 603 boys at Westborough and the school-ships, and 140 girls at Lancaster, — in all, therefore, 743 pupils at the State Reformatories, which now contain but 163 pupils. The *net* expenses of these reformatories in 1867 were \$131,600; in 1881 they have been less than \$45,000, — a reduction due in part to the system adopted of placing and visiting children, and amounting, after fourteen years, to \$87,000 a year. As above indicated, we believe that certain changes, hereafter to be recommended, would reduce the net current cost for 1882 below \$40,000; but an outlay of perhaps \$30,000 for buildings and alterations might be needful to bring about these changes. This sum (\$30,000) is less, however, than the annual reduction in the current appropriations at the State Reformatories since 1878. The cash earnings at Westborough and Lancaster for 1881, though not all belonging to this year, have been greater than ever before; viz., \$12,184. These earnings do not directly diminish the sums drawn from the treasury for the two schools, but they do reimburse the State for a part of the money expended; and, taking these reimbursements into account, the two reformatories last year cost the State less than \$45,000; which sum, in consequence of further reimbursements by the cities and towns (\$10,600), has been further reduced to about \$34,000 for the year ending

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Oct. 1, 1881. This is the smallest net outlay made at the State Reformatories for more than twenty-five years.

The State Primary School, Monson.

Superintendent. — GARDINER TUFTS.

A few persons other than children continue to be maintained at this school; and an increasing proportion of the children there are the boys and girls sentenced to the custody of the Board. Opinions differ as to the effect upon the younger children of associating with these sentenced children, who are generally older, and have committed at least some nominal offence. The prevailing opinion at the Primary School itself now is, that the younger pupils gain more than they lose by such association; the sentenced pupils being naturally bright, and in many cases having received more instruction, before coming to Monson, than the children sent in from the State Almshouse. But the risk of occasional contamination from such sentenced children (who may have contracted habits really vicious and readily communicated) is so great, that, should the limit of age be reduced for the boys sentenced to the State Reform School, and the girls committed to the Industrial School, it would be better to send most of the sentenced pupils now received at Monson to these two schools. This would diminish, to some extent, the average number at the Primary School, which is desirable. This number could also be reduced by sending more of the younger pupils to be boarded in families, — a policy which has not yet been pursued so vigorously as, in our opinion, it should be. The general good condition of the Monson establishment, and of the children there, has been already stated.

The State Reform School, Westborough.

Superintendent. — JOSEPH A. ALLEN.

Since the 1st of December, 1880, there have been three Superintendents at this establishment, — Rev. L. H. Sheldon, who retired at that date; Mr. E. T. Dooley, who retired on the 15th of October; and the present Superintendent, who has been re-appointed, after an absence from the school of

THE WESTBOROUGH REFORM SCHOOL.

more than fourteen years. During that interval great changes have taken place,—the most noticeable being the decrease in the number of pupils, already mentioned, and the reduction of the annual cost, which has not been so small since Mr. Allen's former connection with the school as it has been in 1881. The gross expenditure of the year has been about the same as in 1880, although the appropriation was smaller, but the large cash receipts have reduced the net cost to the State considerably below that of 1880. Notwithstanding a financial showing so favorable, in comparison with the great expenditure of former years, it is our duty to say that the reduction in current cost at Westborough might have been still greater in 1880 and 1881, and the school in better condition now, had the Trustees followed the suggestions made to them by this Board, and discontinued the use of the newer portion of the main building. This would have enabled them to make a saving of more than \$1,000 a year in fuel, and of at least that sum in salaries. The sleigh-shops have also been carried on for the last year at a great expense, with no corresponding profit from the work done in them; and the whole deficiency this year existing at the State Reform School was occasioned by injudicious purchases of wood and iron, made by the late Superintendent, for the purpose of supplying these shops with material which they did not need. The cost of this purchase exceeded \$1,800, when \$200 would have been ample for all the material actually needed. And so long as these shops are maintained in their present condition, with two or three instructors and less than ten boys at work in them, they are a drain upon the funds of the school, without any sufficient compensating advantage.

Meantime, while the Trustees have carried on this costly and hazardous form of labor,—for the boys thus employed have more than once manufactured keys and other tools by which to make their escape,—the fine farm at Westborough has suffered for lack of the labor of the boys; its crops this year, except hay, have been less than usual; and its condition for future crops is not satisfactory.

Still less satisfactory has been the discipline and the moral

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condition of the State Reform School during most of the time (now two years and a half) that this Board has been required by law to take notice of its management. The present Trustees of the combined schools cannot be held responsible for the remote causes of this state of things; the unwise policy, permitted by our laws and encouraged by a former Board of Trustees, having led directly to the recent difficulties and disorganization. This policy, commenced soon after 1870, of receiving and retaining at Westborough a class of boys too old to profit by its discipline, and too much addicted to vice to be allowed among less hardened boys, has shown its natural results during the past two years. Escapes have been frequent, punishments have been frequent also, and severe, but not judicious; and a spirit of unity in disobedience has been fostered among the pupils to an extent that can hardly be overstated. As a place of reformation and moral improvement the Westborough School in these two years has been a failure; and, unless it can be radically changed in these respects, it would be best for the State to give it up entirely. Without pausing to mention in detail the various causes of this unhappy condition of affairs (which has become obvious to the whole community), — and without bestowing censure where, although deserved, it could do no good, — let us point out how the existing difficulties can be removed.

The first thing to be done, in the judgment of this Board, is to remove the school itself from Westborough. So palpable has been its ill success, and so closely is this associated with the ill-arranged and unsuitable buildings there, that it would be unwise to attempt longer, in that locality, an experiment that has conspicuously failed. We are informed that several magistrates, who have the option of committing boys to Westborough, steadily refuse to sentence any there, giving as a reason (what we cannot deny) that boys are more likely to get harm than good by such a sentence. An impression of this sort, once fastened in the public mind, is slow to be displaced; and we believe that the Reform School would gain something in the public esteem merely by being removed from Westborough to some place

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without such an ill reputation. A few miles distant, in the neighboring town of Lancaster, is a large farm with good buildings, owned by the State and now occupied by the Industrial School for Girls, who do not half fill the buildings. By transferring these girls to Monson or to Sherborn, which could easily be done, the Lancaster buildings, left vacant, could at once be occupied by the younger boys now at Westborough, who could be employed, as soon as the spring opens, in cultivating the farm there. The number of these boys would be less than 100, and they could be lodged in the four family-houses now standing at Lancaster,—two of them quite unoccupied. For one family of these boys the present workshop at Lancaster could be used; and two other detached workshops in convenient localities could be fitted up in buildings now standing, for a small sum, within a few weeks. The Lancaster buildings already contain schoolrooms, dining-rooms, a chapel, etc., large enough for the boys who should be sent there.

If it should be found necessary hereafter to extend the Lancaster buildings so as to receive more than 100 boys, of the age suitable for a reform school, such as the founder and generous benefactor of the Westborough School designed, there is land enough for any reasonable extension, and for the farm and garden work of the pupils, even should their number reach 200. But it does not seem probable that the State will be called on, for many years to come, to maintain in its reform-school buildings more than 100 or 150 boys below the age of sixteen years. Above that age such boys should not be retained in reformatories of this kind; but, if they need restraint, should be sent to a prison reformatory, where they would be subject to a wise prison discipline, and not permitted to associate at all with younger children, whom their example would corrupt. The younger boys also could be placed out in families (after sufficient detention in the school) so constantly, that their number need not rise above 150, and for the present not above 100. The success of the Trustees in placing out the girls from the Lancaster School during 1881 shows what can be done in this work when it is taken up earnestly by the authorities of the

THE STATE REFORM SCHOOL AT LANCASTER.

school itself, aided by this Board and the auxiliary visitors. There is no reason why these visitors should not take the same share in placing out the younger boys, and thus increase the yearly number in families, instead of allowing them to accumulate in any institution until they are too old, or too much accustomed to institution life, to be placed in families with good success.

It has been supposed that the Lyman Fund, now amounting to more than \$40,000, might not continue to be available for the State Reform School in any other locality than Westborough. But the heirs of the late Theodore Lyman, by whom the fund was given, have informed the Board that they see no reason why the transfer to another locality should not be made, if the interests of the school require it, and that they freely consent to the continued use of the Lyman Fund by the Trustees of the school, should it be removed from Westborough. Mr. Theodore Lyman, the only son of the founder of the school, has made this communication to the Board, and has added his opinion in favor of reducing the ages of the boys received at the school, and shortening the time which they remain there. The Board would express its sense of the generous readiness of Mr. Lyman to forward a measure for the improvement of the institution.

The extensive repairs made on the farmhouse at Westborough were not completed until late in December, 1881; and during the present month, January, 1882, the boys at Westborough have been removed to the older portion of the main building, and to the Farmhouse, except about 50, who were already in the Garden House, and in the Peters House. The whole number of boys at Westborough Jan. 7, 1882, was only 113, of whom only 49 are lodged in the main building, which is capable of accommodating 400 boys. A plan for devoting this building to other uses will be given hereafter.

THE STATE INDUSTRIAL SCHOOL AT LANCASTER.

THE STATE INDUSTRIAL SCHOOL AT LANCASTER.

Superintendent.—N. PORTER BROWN.

This establishment makes a better financial showing than that of the Westborough School for boys; the surplus at Lancaster on the 1st of January, 1882, being nearly twice as great as the deficiency at Westborough. The net cost at Lancaster for the year ending Oct. 1, 1881, was about \$13,500, and, for the calendar year 1881, was not far from the same sum; the whole amount drawn from the State Treasury for current expenses being \$15,586.85, and the cash earnings paid into the treasury \$1,758.10,—leaving a balance undrawn of the appropriation for current expenses (\$18,000) of \$2,413.15, and a net cost to the public of \$13,829. This outlay was made, however, for an average number of only 57 girls; and the number remaining Jan. 1, 1882, was but 48. The average age of these 48 girls at the present time is *sixteen* years; and there are among them only *six* girls less than fourteen years old, while there are *eight* over eighteen, and *three* more over seventeen years old. The great and commendable pains taken by the Trustees and by the school officers to place out as many girls as possible in 1881, has had the effect of increasing the proportionate number of undesirable girls now remaining at Lancaster; and, if all the girls were now discharged or removed to the Sherborn Reformatory Prison who ought not to stay in the Industrial School, the actual number at Lancaster would be little more than thirty. These could all be provided for in a single family-house at Monson or at Sherborn, and the Lancaster buildings could be vacated for the use of the Westborough boys as early as March next.

The school education, industrial training, and general management of the pupils of the Industrial School have been good during the past year; and the practical skill of the Superintendent in farming has made the establishment more productive than in any former year, as appears by the income received from the farm. Its condition has been improved, also, both by the general cultivation it has received, and by the special labor bestowed on the pasture-land, for the

THE IDIOT SCHOOL.

reclaiming which \$500 was appropriated and spent in 1881. More than half this sum was returned in the year by the value of the crop harvested on the land reclaimed. The *silo* (built by Mr. Brown, the Superintendent, at a small expense) has answered his expectations, and the 75 tons of corn-fodder stored in it has been sufficient to feed his stock of 25 cows for about two months of the present winter, thereby saving a large expenditure for grain and meal. The Lancaster buildings generally are in good repair; but the chapel needs to have its roof-timbers strengthened, and the reservoir which supplies the establishment with water should be enlarged, and a few hydrants placed among the buildings for fire protection.

The same remarks apply to this school as to the Westborough School in regard to the age of children who should be sent, and the length of time they should be retained. It may be expedient to allow the girls to stay in their reformatory a year longer than the boys stay in theirs; but the same general principle holds good of both schools. They should not be places of detention for young men and young women, but receptacles and training-schools for boys and girls, for whom homes in good families should be found as soon as practicable.

The Idiot School.

Trustees. — SAMUEL ELIOT, Boston; LEWIS ALLEN, JOHN CUMMINGS, Woburn; JOHN S. DAMRELL, Boston; SAMUEL A. GREEN, M.D., Boston; CHARLES D. HOMANS, M.D., Boston; EDWARD JARVIS, M.D., Boston; W. BRANDT STORER, Cambridge; JOHN D. WASHBURN, Worcester; WILLIAM W. SWAN, Boston; STEPHEN SALISBURY, Jun., Worcester; BENJAMIN SPINNEY.

Acting Superintendent. — Dr. G. G. TARBELL.

The School for Idiotic and Feeble-Minded Youth at South Boston, established in the year 1848, under the eye of its two founders, Dr. S. G. Howe and Dr. Edward Jarvis, has now continued in existence for more than thirty-five years, and has shown what can be done for this unfortunate class. The school instruction of idiots cannot be carried very far; but they can be taught good habits, and a certain degree of moral responsibility. Many of them, too, can be trained to some amount of useful labor. But most idiots need oversight by

THE MASSACHUSETTS INFANT ASYLUM.

the public for the greater part of their lives ; so that a school, which can only receive the young, and cannot retain them very long, does not quite meet the requirements of the public. The managers of the Idiot School, recognizing this, are converting their establishment, in part, into an asylum ; and, for this purpose, have bought a farm of 100 acres, and a farmhouse in Dover near Medfield, to which they have removed six boys, and propose to send others in the spring. The cost of this estate, with tolerable farm-buildings on it, was less than \$6,000 ; and it is under consideration as a site for the whole South Boston School in some future year not far off. The property in South Boston could, perhaps, be sold for enough to rebuild in the country, which, on most accounts, is the better place.

The number of pupils at the establishment in South Boston has never been so large as during the year past, and is now almost 130. The buildings there have been enlarged and improved since they came under the supervision of this Board, and have never been in better condition than at present ; nor has the general management of the school, in respect both to instruction and employment, ever deserved more commendation than now. In the country, however, it would be practicable to employ the pupils more generally in out-door labor than can be done at South Boston.

The Massachusetts Infant Asylum.

Matron. — Miss ELIZABETH CLAPP.

Although this private charity was incorporated in 1867, and occupied buildings in 1868, it was not until the year 1876 that it established itself in its present location at Jamaica Plain, where it has buildings of its own, ample in extent, and admirably arranged. In the report of the asylum for the year ending April 11, 1876, the buildings at Jamaica Plain are described with engraved plans. Their chief features are, exposure to the sun and air, careful ventilation and improved classification of the inmates, who are not allowed to occupy any portion of the buildings in great number. The establishment is placed on a sunny hill-side, sloping to the south, and consists of a central building divided into two parts by an

THE MASSACHUSETTS INFANT ASYLUM.

unbroken brick wall, — the southern half used as a nursery, the northern for kitchen, dining-room, etc.; a wide corridor; a wing, also a nursery; a detached ward, or nursery; and a laundry, removed at some distance. In the southern half of the central building, on the first floor, the matron has her parlor, bed-room, and bath-room. Above, the area of 40 feet by 22 is divided into two nurseries, each holding two nurses and four infants. It has the brick wall on the north, but is open on three sides and overhead to the sun and air. The area of the western wing is 44 by 24 feet, divided above into two nurseries, each holding three nurses and six infants. It has windows on all four sides, and is thoroughly open to sun and air. Beneath, on the first floor, are the assistant matron's rooms, day nursery, linen and medicine closets. The detached ward, joined by a covered passage, stands on piers, and is swept above by every wind. It is 20 feet square. One of the most important features of the plan is the corridor, 45 by 16 feet, connecting the principal building and this wing. It has a brick wall on the north; and its continuous line of glass, looking east and south, renders it a very attractive and beautiful adjunct, answering well for a "sun-bath." It was intended to be kept cool, as a place of exercise for the infants. On its roof is a passage between the buildings, and a place for sunning and airing mattresses in fine weather. In stormy weather a small loft is provided for the latter purpose over one of the corridors. It is ventilated from floor to roof, which is one long skylight. A rack holds the mattresses in the sun, allowing free circulation of air around them. In the rear of the central building, on the second story, is a room for receiving infants and keeping them for ten days or a fortnight, till it is ascertained that it is safe to place them with the other children.

In these buildings there are never more than twenty children, and oftentimes less than that number. In the branch asylum at West Medford, where a house is hired for that purpose, less than ten infants are generally kept. The whole arrangement of the buildings in both localities would serve as a model for other communities desirous of preventing the death of foundling and deserted children.

MUNICIPAL AND PRIVATE CHARITIES.

IV. — MUNICIPAL AND PRIVATE CHARITIES.

Having thus described the State Charities and the provision made in the State establishments and elsewhere for the "Children of the State" (as these minor wards of the Commonwealth have been happily styled), we may now briefly point out what is done in the same direction by the cities and towns, and by organized private charity when it takes the place of public assistance. With charity that is strictly private this Board has nothing to do; but the aid given by corporations and private associations to persons who would otherwise be public dependants comes so near the domain of public charity that it cannot be wholly left out of view in any statement of the charities of Massachusetts as a whole. We have therefore, in the chapter on Lunacy (as is specially required by law), reported on the private asylums for the insane, and in speaking of the foundling children have mentioned the admirable volunteer work of the Massachusetts Infant Asylum. The great mass of our private charities cannot yet be reported on fully; for no law requires that they should make returns to the State of their receipts, expenses, and general transactions, unless they receive aid from the State Treasury, as the Massachusetts Eye and Ear Infirmary does. It has been customary at intervals to collect information concerning these private charities by the courtesy of their managers, and to publish this in connection with the record of the State and municipal charities; and we hope to present in the Fourth Annual Report the fullest information of this kind ever published, using as a basis the census tables of 1880, and the valuable researches of Mr. George S. Hale in the "Memorial History of Boston" and of the "Associated Charities" in Boston and other cities. For the present the Board can only report on a few of these private charities; and in a general way, but with some detail in certain directions,

PAUPERISM IN THE CITIES AND TOWNS.

on the municipal charities, meaning thereby the public charity dispensed in various forms by the 346-cities and towns of Massachusetts, all but one of which have made returns to this Board during 1881.

Pauperism in the Cities and Towns.

Copious statistics on this subject will be found in the first 62 pages of the Appendix, accompanied with explanatory remarks on the tables. These have been prepared from the yearly returns by the Inspector of Charities assisted by trained clerks, who have sifted out from the tables those constant repetitions and duplications that in many statistical publications of this sort destroy the value of the information given. By these it appears, that, except for the pauperism induced by insanity, public poverty has been decreasing in Massachusetts for three years past; that this decrease is now stopped by the influx of immigration and the presence of active disease, but that there is no advance of pauperism at all proportionate to the gain in population, except among the insane poor. In order to ascertain what was the actual condition of that small portion of the insane poor who are maintained in city and town almshouses, these establishments, 218 in number, have been visited by the Inspector of Charities and his deputies for two successive years; and the names and general condition of all the insane and idiotic paupers therein have been noted down, and put on permanent record. The sanitary condition of these establishments has also been investigated; and, for the first time since the State was organized, it is now possible to ascertain, by a few hours spent in reading these records, what is the state of the drainage and water-supply of more than 200 almshouses, containing a constant population of more than 3,000 persons, of whom a little more than 600 are children, and not quite 600 are insane persons. No such thorough visitation of these almshouses was ever made before, although it has been once or twice attempted. It will now be easy to keep it up from year to year at no great expense, the total cost of these preliminary visitations (which extended in 1880 to every city and town in the State) having been less than \$1,500 for two years.

THE CITY AND TOWN ALMSHOUSES.

THE CITY AND TOWN ALMSHOUSES.

The fourteen counties of Massachusetts are very unequally supplied with local almshouses, there being 11 in Barnstable County, which contains 14 towns; 4 in Berkshire, with 32 towns; 18 in Bristol, with 19 towns; none in Dukes, with 6 towns; 24 in Essex, with 35 towns; 10 in Franklin, with 26 towns; 7 in Hampden, with 22 towns; 7 in Hampshire, with 23 towns; 43 in Middlesex, with 54 towns; 1 in Nantucket; 18 in Norfolk, with 25 towns; 21 in Plymouth, with 27 towns; 4 in Suffolk with 4 towns (all, however, in the city of Boston); and 50 in Worcester, with 58 towns,—in all 218 in the 346 towns and cities of the State. But these 218 almshouses are found in only 215 towns and cities, although 7 other towns make use of almshouses situated beyond their own limits for a portion of their poor.

Of these 218 almshouses only about 212 have been visited by the Inspector of Charities and his deputies in the year 1881; but all of them were visited in the year preceding, when also towns which maintained no almshouses were visited for the purpose of ascertaining the condition of their insane poor. The present number of cities and towns in Massachusetts is 346, in only 215 of which are there almshouses; about 124 cities and towns supporting their poor without the use of any almshouse, either their own or that of any other town. In about 15 towns, however, the poor are supported in a single family, where no almshouse is owned or used; and this approximates to the almshouse system, though the family having the charge of the poor may change from year to year. Several of the towns are about to build almshouses, while others are ceasing to use theirs; on the whole, the number of almshouses being less than formerly, though the whole number of towns increases. Of these almshouses, that which has been the longest in use is at Newburyport, which has been used continually since 1793; but there are several others which are older as houses, though more recently purchased by the towns using them. Comparatively few of them have been built within twenty years, though many have been rebuilt or largely repaired within that time.

THE CITY AND TOWN ALMSHOUSES.

Even places of large population are slow to rebuild or remodel their almshouses, so that many of our cities have establishments quite out of proportion to their needs, both as regards size and comfort. This is true of Newburyport, Salem, Haverhill, Lynn, Lowell, Fall River, and some other cities; while Chelsea, Holyoke, and Somerville have no almshouses at all, though in these three cities there is now a population above 75,000. Springfield and Taunton have well-built, new almshouses, in which the poor may live in great comfort. Boston has several almshouses for distinct classes of its poor, the different sexes and ages being separated there; but few of the buildings are new, and none of them (in Boston) are used for the insane. There are many small towns, also, that maintain all their insane in hospitals and asylums, as Boston does: and there are comparatively few cities or towns that keep more insane persons in their almshouses than at the hospitals; though several are preparing to do so, should there be occasion.

These almshouses are changing so much from year to year, that, though the same general remarks might hold true of them, yet particular observations would not apply to the individual towns. Thus the towns of Carlisle and Orange, which have had buildings among the worst in the State, have erected new almshouses in 1881, which are ample, clean, and convenient. Westborough, which at the beginning of the year had an old almshouse and a large farm, now has a new house and a small farm in another part of the town. Newburyport, which now has one of the worst almshouse buildings in the State, so far as construction is concerned, will soon have one of the best, perhaps. The cities of Lowell and Lawrence have in contemplation material changes in their almshouse building, some of which will be made in the year 1882; and many of the towns which have not altered and improved their almshouse buildings within the past two years, will, no doubt, do so in the next two years. Upon the whole, these buildings are in much better condition than when visited by the Secretary of the Board of State Charities in 1864 and '65, although in several towns the buildings are very old and much out of repair; while in the cities of Lowell, Fall River, and Haver-

THE CITY AND TOWN ALMSHOUSES.

hill they are quite inadequate for the number of persons now sent to them, and especially for the mixture of all classes which are now received in Lowell and Fall River. This mixture of young and old, sane and insane, in the local almshouses, is, to some extent, unavoidable; but in all the cities separate provision ought to be made for the pauper children and the truants, while the chronic insane should be in buildings by themselves, properly classified and cared for.

The great mass of the pauper insane of the cities and towns are supported at hospitals and asylums, and not in local almshouses or private families. Nor does it appear that those in almshouses are increasing with any thing like the rapidity with which the town and city patients in the State hospitals increase. Yet, as the latter accumulate so as to fill the hospitals, it will be necessary to make room there; and many will naturally be removed from hospitals to almshouses, as has been done already at Lowell, Springfield, Salem, and a few other places. Hence one reason for the recent visitation was to ascertain, by inspection, what capacity the town and city almshouses have for the chronic insane, and what the treatment of this class has been in these almshouses heretofore. As a rule, no cases of recent insanity are found in the almshouses; yet now and then one finds its way there. Most of the persons truly insane at the almshouses have been in the hospitals, — some of them for many years; but there is a large number of cases on the border-land between idiocy and insanity, which seem never to have been in hospitals at all. Of late years the custom has been to send such persons to an insane hospital, but such was not the former practice. It is difficult, and in most cases not very important, to draw distinctions between these cases and those of genuine insanity or marked idiocy, their history being obscure. There is little hope of the recovery of the almshouse insane as a class, yet recoveries do virtually occur now and then. In a few almshouses gross neglect and mismanagement have been found; but these are comparatively rare, and are generally explained in such a way as to throw no lasting discredit on the town authorities. It is to be considered, also, that many almshouse-keepers, in the smaller towns, are not persons of a very high

THE CITY AND TOWN ALMSHOUSES.

grade of efficiency and neatness, and are frequently changed in consequence of this. It has happened often in the experience of the visitors, that an almshouse would be found infested with vermin more or less, which the new keeper ascribed to the slovenliness of his predecessor, in many cases correctly, no doubt. It is found, however, very difficult in practice to keep an almshouse in which tramps are allowed to lodge, free from vermin; for they have infested comparatively new almshouses. Hence, and for the reasons of safety and convenience, this class of the poor, of late years, have been more and more provided for in separate buildings, oftentimes at a distance from the almshouse, or even off the farm. It is manifest that such an arrangement is desirable wherever the insane are kept in any numbers at an almshouse.

Of homicidal and otherwise dangerous lunatics, few are found in the almshouses; and, from the nature of the case, few are likely to be kept there. An occasional assault committed by an insane person (as the dangerous wounding of the almshouse-keeper at Cambridge a few years ago) has the effect of reducing the number of insane of all sorts in the almshouses of the neighborhood where it occurs. Accordingly, most of the lunatics found in almshouses were harmless, except those epileptics who, in their attacks, display the homicidal frenzy; and these are not numerous. There are, in fact, hundreds of harmless insane patients in the hospitals, who, in respect to the safety of other persons, might as well be in their local almshouses. The whole number of persons strictly insane found in the towns visited did not exceed 600, and of these not more than 550 were found in almshouses. There are therefore three of the six State hospitals and asylums that each contains more than all the city and town almshouses taken together; there being 596 patients at the new Worcester Hospital, 558 at Taunton, and 641 at Danvers. Had the inspection of the almshouses been made at the beginning of 1882, it is possible that 575 inmates, properly classed as insane, would have been found in them; and this number may increase during the year to 600 or upward resident there at any one time.

Although every variety of almshouse construction and

COMPARATIVE PAUPERISM IN 1881 AND 1882.

management, except the very best and the very worst, may be found in any large district of the State, yet it is true, as a general remark, that the city and town almshouses east of Worcester are not only more numerous, but better built and better managed than those west of that city. The general care of the poor is also more liberal in the eastern than in the western counties, and in some of the eastern cities has been at times altogether too liberal. Any extravagance in expenditure, however, occurring in a city or town, is generally corrected within a period of five years, and is immediately followed by a strict and responsible system depending on exact knowledge of the condition of the poor in that municipality. Striking illustrations of this change from a lax system to a better one have occurred in Cambridge, Fall River, Springfield, Edgartown, etc., within the past five years.

The Tables XV. and XVI. in the Appendix, with the remarks supplementary thereto on pp. 59-61, show the comparative frequency of pauperism in the cities and larger towns of the Commonwealth at the beginning of the three years 1879, 1880, and 1881. At the present time it is not possible to give the corresponding figures for 1882 in all these cities and large towns; but some general facts concerning the municipal poor on the 1st of January, 1882, can here be added.

Returns have been received up to date, from 281 cities and towns, showing the number of their poor fully and partially supported on the 1st of January, 1882. These places had a population of 1,409,752 in 1880, and on the 1st of January, 1881, contained 5,204 paupers fully, and 15,988 paupers partially supported, with 1,736 insane. At the corresponding date in 1882 the numbers were as follows: 5,573 paupers fully supported, 14,176 partially supported, and 1,949 insane; showing that, except the insane, the municipal poor in Massachusetts have decreased since the last winter. This is due, no doubt, to the exceptional mildness of the season; and it can hardly be expected that another winter will show the same result. The total number of the poor of all classes reported in these 281 cities and towns was 21,402 in 1881, and 19,956 in January, 1882.

THE MASSACHUSETTS EYE AND EAR INFIRMARY.

PRIVATE CHARITIES.

The Eye and Ear Infirmary.

The appropriation for this long-established charity was increased in 1881 to \$15,000, which has been expended for purposes that will appear by the statements of its annual report, which has not been received by this Board. Although the Eye and Ear Infirmary has been of great service to persons afflicted with diseases of sight and hearing, and although the money appropriated by the State may well have been judiciously expended, yet a question has arisen whether the extension of this particular charity to all the inhabitants of New England (which is practically the case now) does not attract to Boston a considerable number of poor persons, not resident in Massachusetts, who yet come upon the State for support as paupers after their treatment at the Infirmary is ended. This is in fact the general operation of our whole system of charities, public and private; and this makes necessary the removal of so many poor persons from the State every year. Such a result is unavoidable to some extent; but it is well to inquire in regard to each increasing private charity whether all the available means are employed to counteract this influence, which increases our pauper population.

No estimate of the sum asked for by the Massachusetts Eye and Ear Infirmary, as a State appropriation, has been received; and the application will probably be first made, as usual, to the legislative committee on public charities.

The information required concerning the School for Idiotic and Feeble-Minded Youth, and the Massachusetts Infant Asylum (which are also private charitable corporations largely aided by the State), has already been given on preceding pages; and the schedules of Part Fourth will show their comparative expenses for three years; while the tables in the Appendix exhibit the valuation and expenditures of the Idiot School for the year ending Oct. 1, 1881.

IN-DOOR AND OUT-DOOR RELIEF.

Making an aggregate of all the expenses for the relief of the public poor of Massachusetts, — including what has been paid by the cities and towns (about \$1,400,000), and by the State, at the State Almshouse, State Workhouse, State Primary School, the lunatic hospitals, etc., also for foundling and destitute infants, for the sick poor, etc. (in all, about \$390,000 from the State Treasury), — it seems that the net cost of supporting and relieving the poor of all classes for the year 1881 has been about \$1,800,000. Of this, something more than \$635,000, or above a third part, has been paid for the support of the insane poor. The net cost of partial support or out-door relief in the whole State, reckoning both the settled and the non-settled poor, was in 1881 about \$550,000 or less than a third of the total cost (\$1,800,000), while the net cost of all kinds of in-door relief was about \$1,250,000; reckoning as in-door relief the support of the poor in lunatic hospitals, almshouses, schools for poor children, and other institutions, including the Massachusetts Infant Asylum. In some cities the cost of out-door relief has been nearly or quite as great as that of in-door relief; but in the whole State the balance is largely on the side of in-door relief. It appears also that out-door relief is more judiciously given in most places than in former years.

 PART FOURTH.—FINANCES AND POPULATION.

 PART FOURTH.

 FINANCES AND PRESENT NUMBER OF
DEPENDANTS.

By law the Board is required to make certain estimates directly, and to give its opinion on the sufficiency of certain other estimates, during the month of December in each year. These estimates are quite various, but fall into two main classes, — (1) special or out-door appropriations, and (2) regular in-door appropriations; the former including the sums paid for board, for reimbursement, for private charities, for removals, etc., and the latter including the expenditures at those establishments which the State supports directly from its treasury.

Estimates for Special Appropriations for 1882.

These were duly sent to the Secretary of State by the Board under the law of 1880, and are as follows:—

For the support of State paupers in lunatic hospitals	.	.	\$118,000
support of the sick State poor	.	.	27,000
burial of State paupers	.	.	7,000
support of infants in the Infant Asylum	.	.	15,000
support of other foundlings	.	.	8,500
temporary aid of State paupers	.	.	18,000
transportation of paupers	.	.	12,600
expenses of settlement and bastardy	.	.	2,000
expenses of small-pox	.	.	10,000
expenses of Indian State paupers	.	.	500
Total	.	.	\$218,000

The appropriations and deficiencies under these heads for 1881 amount to about \$216,000. Probably the sum now estimated for 1882 will prove more than sufficient in the aggregate; for there was a surplus in the estimate for the support of State paupers in lunatic hospitals last year.

TABLE OF ESTIMATES.

To this total of	\$218,000
Should be added for the Idiot School	18,000
Total	<u>\$236,000</u>

No estimate was made by the Board for the Massachusetts Eye and Ear Infirmary.

Estimates for In-Door Appropriations.

These include the whole expense of the State Almshouse, State Workhouse, and State Primary School, for their current cost in the coming year; all but a small portion of the current expenditure at the State Reform School and the State Industrial School (the fraction being paid from the income of funds); and the outlay for other than ordinary expenses at the State lunatic hospitals. The following are the estimates sent in by the State establishments in December, 1881, with the Board's own estimate added in each case:—

TABLE OF ESTIMATES FOR 1881.

FOR THE TEWKSBURY STATE ALMSHOUSE. (*Trustees' Estimate.*)

Salaries, wages, and labor	\$20,000 00
Flour and grain	11,475 22
Groceries, provisions, etc.	47,870 57
Fuel	8,319 92
Dry-goods, etc.	7,334 29
	<u>\$95,000 00</u>

This Board recommended the appropriation of \$90,000, of which \$19,000 should be paid for salaries, wages, and labor.

STATE PRIMARY SCHOOL AT MONSON. (*Trustees' Estimate.*)

Salaries, wages, and labor	\$17,000 00
Groceries and provisions	17,000 00
Clothing	7,000 00
Fuel	4,500 00
Ordinary repairs and improvements	3,000 00
Miscellaneous expenses	2,000 00
Grain and feed for stock	1,500 00
Total	<u>\$52,000 00</u>
(Painting buildings)	2,500 00

TABLE OF ESTIMATES.

This Board recommended the appropriation of \$52,000, without specifying how it should be expended; and approved the estimate for painting.

STATE WORKHOUSE AT BRIDGEWATER. (*Trustees' Estimate.*)

Salaries, wages, and labor	\$11,000 00
Groceries and provisions	14,000 00
Fuel	4,000 00
Clothing	3,000 00
Repairs and improvements	3,000 00
Other ordinary expenses	5,000 00
Total	<u>\$40,000 00</u>

This Board recommended the appropriation of \$40,000, without specifying how it may be divided; its intention being to increase the number at Bridgewater by transfer.

STATE REFORM SCHOOL. (*Trustees' Estimate.*)

Salaries	\$15,000 00
Current expenses	22,000 00
Painting	2,000 00
Pipes	600 00
Total	<u>\$39,600 00</u>

This Board recommended the appropriation of \$30,000 without specifying how it may be divided; referring the Legislature to the recommendation for removing this school to Lancaster.

INDUSTRIAL SCHOOL FOR GIRLS. (*Trustees' Estimate.*)

Current expenses	\$9,000 00
Salaries	5,600 00
Improvement of farm	500 00
Total	<u>\$15,100 00</u>

This Board recommended the appropriation of \$15,000, but believes that a smaller sum will be needed if the school is removed from Lancaster.

Estimates for extraordinary expenses from two of the lunatic hospitals, at Taunton and at Danvers, and from the State Primary School, came before the Board, and were considered. The Trustees of the Taunton Hospital ask the Legis-

POPULATION OF THE STATE ESTABLISHMENTS.

lature to appropriate \$8,000 for the purchase of land, and a sum not exceeding \$2,500 to complete the building for which \$25,000 was appropriated in 1881.

The Board’s opinion concerning the improvements at Taunton has been given ; the estimates were approved. The estimates of the Danvers Hospital Trustees, as submitted, were as follows :—

For maintenance	\$35,000 00
For walls and fences	5,000 00

In the opinion of the Board, no appropriation is this year needed at Danvers for walls and fences ; and for maintenance—that is, to supply the deficiency between the income and the expenses of the hospital—the sum of \$35,000 ought to be sufficient to prevent the yearly necessity of borrowing in advance of receipts.

In order to show the population of each establishment at the date when these estimates were made, we present here the figures on the 1st of January, 1882, with the average number for the calendar year 1881 :—

TABLE E.—POPULATION OF THE STATE ESTABLISHMENTS.
Jan. 1, 1882.

At the Tewksbury State Almshouse, 944 (average for 1881, 915).

Men	473	Inmates of Asylum for the	
Women	413	Insane (included above) .	291
Boys	33	Males	82
Girls	25	Females	209

At the Monson State Primary School, 455 (average for 1881, 426).

Men	—	Pupils (included above) .	391
Women	22	Boys	296
Boys	320	Girls	95
Girls	113		

At the Bridgewater State Workhouse, 229 (average for 1881, 187).

Men	203	Convicts, male	99
Women	21	female	15
Boys	3	Paupers, adults	110
Girls	2	children	5

POPULATION OF THE STATE ESTABLISHMENTS.

At the Worcester Lunatic Hospital, 596 (average for 1881, 585).

State patients	113	Males	572
Town patients	377	Females	324
Private patients	106		

At the Taunton Lunatic Hospital, 558 (average for 1881, 564).

State patients	82	Males	281
Town patients	418	Females	277
Private patients	58		

At the Northampton Lunatic Hospital, 463 (average for 1881, 456).

State patients	172	Males	228
Town patients	237	Females	235
Private patients	54		

At the Danvers Lunatic Hospital, 641 (average for 1881, 621).

State patients	109	Males	314
Town patients	442	Females	327
Private patients	90		

At the Worcester Chronic Asylum, 364 (average for 1881, 361).

State patients	95	Males	166
Town patients	269	Females	198

At the Westborough State Reform School (average for 1881, 168).

Boys	115
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At the Lancaster State Industrial School (average for 1881, 57).

Girls	48
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At the Massachusetts School for Idiots, South Boston, 135 (average for 1881, 120).

Males	81
Females	54

The aggregate of these averages is 4,460. The total number, Jan. 1, 1882, was 4,548.

SUMMARY OF INMATES OF STATE ESTABLISHMENTS JAN. 1, 1882.

Institutions for the Insane :—

Males	1,343
Females	1,570
Total	2,913
State patients	826
Town patients	1,779
Private patients	308
Total (as above)	2,913

SCHEDULE A.—EXPENSES FOR THREE YEARS.

Tewksbury (excluding the Asylum), Monson, and Bridgewater	1,337
Westborough, Lancaster, and the Idiot School	298
Aggregate * (January, 1882)	4,548
(January, 1881)	4,654
(January, 1880)	4,594
(January, 1879)	4,589

To what extent expenses have been reduced during the last three years, at the establishments other than hospitals, under the supervision of the Board, will appear by the following schedule of appropriations and expenses for the years 1878, 1880, and 1881:—

SCHEDULE A.

	1878.		1880.		1881.	
	Appropriation.	Expenditure.	Appropriation.	Expenditure.	Appropriation.	Expenditure.
Tewksbury Almshouse	\$92,000 00	\$91,978 84	\$84,000 00	\$83,923 95	\$85,000 00	\$94,097 89
Bridgewater Workhouse	50,000 00	43,371 84	40,000 00	37,313 70	40,000 00	35,107 38
Monson Primary School	58,300 00	58,278 17	52,000 00	51,976 18	50,000 00	49,993 47
Westborough School	65,000 00	64,992 61	43,424 00	38,430 82	40,000 00	40,247 62
Lancaster School	25,500 00	23,865 76	18,500 00	18,441 95	18,535 00	16,121 85
Idiot School	20,000 00	20,000 00	17,500 00	17,500 00	17,500 00	17,500 00
Total	\$310,800 00	\$302,507 22	\$255,424 00	\$247,586 60	\$251,035 00	\$253,068 21

In all the above-named establishments, except the Idiot School, the net cost to the State, as already explained, is considerably less than the total above given for the years

* Although the aggregates above given show a decrease, in the three years, of 41 persons, it is to be noticed that a great increase has taken place among the insane inmates, who, on the 1st of January, 1879, numbered only 2,387; on the 1st of January, 1880, 2,648; on the 1st of January, 1881, 2,745; and now 2,913. The insane have increased therefore, in three years, 526 in these State establishments; while the sane inmates at Tewksbury, Monson, and Bridgewater, have decreased from 1,969 three years ago, and 1,757 two years ago, to 1,337, the present number,—a decrease, therefore, of 632 in the three years among the sane inmates. The pupils at Westborough and Lancaster were 370 three years ago, 289 two years ago, 253 one year ago, and now only 163. The sane men at the State Almshouse number 391, the sane women only 204; and this disproportion is increasing. These changes of population, past and prospective, should not be left out of view in making the appropriations. For the last column of Schedule A, see note to p. cxciii.

SCHEDULE B.—SPECIAL EXPENSES FOR THREE YEARS.

named, because of the earnings from labor, the product of sales, and the reimbursement by the cities and towns of a part of the sum drawn from the State Treasury. This net cost for the year ending Oct. 1 will be found in Table VIII. of the Appendix, and for the calendar year 1881 will be somewhat greater at most of the establishments. Let it be observed that the appropriations for 1881 were less by nearly \$60,000 in the above establishments than they were in 1878, and that the expenditure was almost \$50,000 less. The appropriations for the same institutions, as recommended by the Board for the present year (1882) amount to \$247,600, and the expenditure is not likely to be so great as in 1881.

The sums appropriated and expended, under the special appropriations for which the Board makes estimates annually, have been as follows during the three years 1878, 1880, and 1881:—

SCHEDULE B.

Sums Appropriated and Expended under Special Appropriations.

	1878.		1880.		1881.	
	Appropriation.	Expenditure.	Appropriation.	Expenditure.	Appropriation.	Expenditure.
State paupers in lunatic hospitals	\$100,000 00	\$109,463 00	\$119,244 96	\$119,244 96	\$120,000 00	\$113,226 70
Danvers deficiency	25,000 00	25,000 00	20,000 00	20,000 00	15,000 00	15,000 00
Other State paupers,—support and temporary aid	70,250 00	57,666 88	42,000 00	38,617 00	49,000 00	45,000 00
State paupers, burial	7,000 00	8,108 03	6,000 00	6,034 75	6,000 00	6,000 00
removal	10,000 00	9,871 73	10,000 00	} 10,356 31	} 10,000 00	} 9,997 71
transportation	1,000 00	468 15	1,000 00			
State pauper convicts	500 00	—	500 00	53 16	500 00	—
Massachusetts Infant Asylum .	8,000 00	9,688 61	15,000 00	15,000 00	15,000 00	13,500 00
Eye and Ear Infirmary	8,000 00	8,000 00	9,000 00	9,000 00	15,000 00	15,000 00
Women's Advisory Board . . .	600 00	308 85	abolished.		—	—
Total	\$240,350 00	\$228,575 25	\$222,744 96	\$218,306 18	\$231,100 00	\$217,724 41

It will be observed that in these expenditures there had been a less decrease in the three years than in the expenditures at the seven establishments previously named, for which there are several reasons. The chief reason has been the increased number of the insane, for whom the State has

SCHEDULE C.—EXPENSES OF THE CENTRAL BOARD.

been obliged to pay board in its hospitals, and the large cost of carrying on the Danvers Hospital, which shows a deficiency in each year, since 1877, of from \$10,000 to \$25,000. The expenditure for temporary aid has much diminished, but that for the care of foundling and deserted children has increased; and a small appropriation has been made, for the last two years, in aid of cases of exigency, which were met by the general appropriations. This appropriation of \$2,000 in each year has not all been expended.

The appropriations and expenditures of the Board of State Charities, the State Board of Health, and the agencies and departments of these Boards in 1878, and of the present Board of Health, Lunacy, and Charity, in the calendar years 1880 and 1881, were as follows (so near as can now be computed, exclusive of the cost of printing their reports):—

SCHEDULE C.

	1878.		1880.		1881.	
	Appropriation.	Expenditure.	Appropriation.	Expenditure.	Appropriation.	Expenditure.
Board of Charities . . .	\$62,021 44	\$60,587 03	-	-	-	-
Board of Health . . .	7,500 00	7,251 99	-	-	-	-
Board of Health, Lunacy, and Charity	-	-	67,000 00	65,000 00	68,600 00	64,300 00
Total	\$69,521 44	\$67,839 02	\$67,000 00	\$65,000 00	\$68,600 00	\$64,300 00

The appropriations and expenditures above given include several items already given in a preceding schedule (B),—namely, the appropriation for removal and transportation (\$10,000), and the expenditure under it (\$9,997.71); and the settlement and bastardy appropriation (\$2,000), and the sum expended (\$648.65). The expenditure also includes sums drawn from the Temporary Aid and Foundling appropriation. These are included as part of the Board's appropriation, because they go in part to pay for the service which the Board directs; but more than \$9,500 of this amount of \$10,646.36 is paid for railroad and steamship fares, and other expenses of transportation. Schedule C shows that, although the work done by the consolidated Board of Health, Lunacy,

GENERAL WORK OF THE BOARD, AND ITS RESULTS.

and Charity, has been much greater in 1881 than that done by the two Boards in 1878, the cost of doing this work has been less than in that year. The increased population of the State, and the special increase in the insane, the founding children, the small-pox patients, and some other classes of the public dependants, will make it needful to increase the Board's appropriations for 1882, if the necessary amount of service is to be done by its several departments. These have performed their work in the year past to the satisfaction of the Board; and their officers deserve commendation for the extent of their labors, and the fidelity of their performance.

The sums collected by the Board during the three calendar years, 1879, 1880, and 1881, and paid into the State Treasury, were, —

	1879.	1880.	1881.
From board of patients in lunatic hospitals, etc.	\$9,551 84	\$18,457 17	\$36,154 35
From board of inmates of State schools, etc.	15,069 30	15,557 48	37,916 79
	\$24,621 14	\$33,814 65	\$74,071 14

The aggregate of these sums for the three years in which they have been collected by the present Board is more than \$132,000, which is nearly as much as the whole cost of the work done in the departments of Lunacy and Charity in the three years. This work, however, has apparently saved the State from the expenditure of at least \$100,000 in the three years for the support and relief of paupers who would otherwise have been a State charge.

General Observations on the Finances of the State Establishments.

No estimates being required by law for the ordinary expenses of the State lunatic hospitals, those establishments do not appear in the above schedules of appropriation and expenditure. But, as has been stated in Part Second, and

GENERAL OBSERVATIONS ON THE FINANCES.

as will appear by Table XIII. in the Appendix, all the four State lunatic hospitals have a nominal surplus, amounting on the 1st of October, 1881, to \$117,238.88, and really amounting at the present time to about \$110,000. The Danvers Hospital, however, annually incurs a deficiency amounting to about \$20,000, for which the State makes an appropriation. The other hospitals are self-supporting; that is to say, their income from patients, together with their surplus, is sufficient to meet all their yearly expenses. The Idiot School, also, which appears last in Schedule A, meets all its expenses from its income; the greater part of this income being derived from a State appropriation.

The five establishments first named in Schedule A depend for their support on direct appropriations from the State Treasury; and the amount of these appropriations, and the corresponding expenditures for 1878, 1880, and 1881, appear in Schedule A. Upon the facts shown in this schedule, the Board would here make a few observations, most of which apply to all the State establishments, whatever their sources of income.

In establishments for the insane and the other public dependants, provided the number of inmates for the coming year is approximately known, there is no great difficulty in estimating the probable expenditure a year in advance. Any great addition to the number of inmates, of course, adds to the current expense considerably; but a large decrease in the average number supported may not necessarily allow the expenditure to be diminished in proportion. Thus the dwindling number of inmates at the Bridgewater Workhouse, and the Westborough and Lancaster Reformatories during the year 1881, has caused the average weekly cost there to appear very large. A portion of this cost might, no doubt, have been avoided at Westborough; and the money expended at Bridgewater, with a small addition, might have sufficed for the support of the surplus population of the State Alms-house, could the latter have been conveniently transferred from Tewksbury to Bridgewater. Most of the establishments, according to our observation for the last two years, regulate their expenditure according to their probable income (which

GENERAL OBSERVATIONS ON THE FINANCES.

can readily be estimated after the legislative appropriations have been made); and it is seldom needful to incur a deficiency, provided each establishment considers its income before making its outlay. This does not seem to have been done in the past year at the Westborough School, nor at the Tewksbury Almshouse. At the last-named establishment, also, the estimates were imperfectly made, and apparently without sufficient regard to the amount of fuel and supplies on hand at the close of 1880. But had the authorities at the State Almshouse, when they ascertained that their appropriation would be too small, requested this Board to transfer a portion of the inmates to the unoccupied rooms at Bridgewater, and had they also avoided the expenditure of considerable sums for improvements which should have been provided for by the special appropriations, their deficiency would have been much smaller.

At several of the establishments there is an excellent method of distributing the supplies, by which each person who receives them is made responsible, and an exact account is kept of what is distributed and what becomes of it. The lack of such a method at Westborough and Tewksbury accounts, in part, for the existing deficiencies; but the Board is assured that a better system will be adopted in the coming year.

The total appropriation made for the State Primary and Reform Schools in 1881 was \$108,535, of which \$2,172.06 remained in the State Treasury at the end of the calendar year; there being a surplus at Monson of \$6.53, at Lancaster of \$2,413.15, and a net deficiency at Westborough of \$247.62. These appropriations were made separately to the three schools; but as it has become necessary, now for the second time, to transfer the surplus of one school by legislation to make good the deficiency at another, it might be better to vote the three appropriations in one sum to the Board of Trustees, leaving them to apportion it among the schools. The whole number of children in the three establishments is to-day less than 620, while the estimates of the Trustees for 1882 call for appropriations of nearly \$110,000, or nearly \$200 a year for each child. A sum not exceeding \$95,000, granted

GENERAL OBSERVATIONS ON THE FINANCES.

to the Trustees for the current expenses of the three schools, would probably be enough. There is a surplus in the appropriation for the State Workhouse in 1881 of nearly \$5,000, while there is a deficiency of about \$9,097.89* at the State Almshouse. In all, therefore, the appropriations for 1881, in Schedule A, have not proved sufficient, the net deficiency being about \$2,000.* For this deficiency there were several causes, the rise in prices being only one among them.

At the State Primary School the appropriation for extraordinary expenses in 1881 included \$4,500 for an improved hospital, and \$8,800 for increasing the water-supply; in all, \$13,300, of which about \$7,077.05 has been expended, about \$1,500 for the hospital, and the rest for the water-supply. The balance of the latter appropriation will be drawn in the spring of 1882, as is now supposed.

* In computing the deficiencies appearing in Schedule A, account was taken of the surplus in the appropriation for salaries at Tewksbury and Westborough; and this reduces the net surplus at Tewksbury to the amount named (\$9,097.89), and at Westborough to \$247.62. But the actual deficiency in current expenses to be provided for at the State Almshouse is \$9,492.80, and at Westborough \$1,367.18, because the salary appropriation is not, in fact, available for any thing except the payment of salaries and wages. This will explain why the deficiencies are sometimes mentioned in this Report at one sum, and sometimes at another; the *net* deficiency being one thing, and the sum which must be voted as a deficiency appropriation *for current expenses* being another and different thing.

PART FIFTH.

GENERAL REMARKS AND SPECIAL RECOMMENDATIONS.

THE preceding pages of this Report contain many suggestions and recommendations looking towards improvement in the interests of public health, public charity, and the care of the insane. In these concluding pages, the Board would sum up what it deems of most importance in these suggestions, accompanying them with general remarks and definite recommendations, looking towards legislative action.

I. — AN ASYLUM FOR THE CRIMINAL AND DANGEROUS INSANE.

In accordance with the statement on p. xxxviii, the Board here presents alternative plans for such a separation of this portion of the insane of Massachusetts from the other patients in our hospitals and asylums.

1. Occupation of the Westborough Buildings.

This complete separation from other establishments, which would be desirable, is difficult to maintain in Massachusetts, on account of the small number of our insane in the various classes to be provided for. The nearest approach to it which the coming year seems likely to put in the power of the State is to take the main buildings of the State Reform School at Westborough, and adapt the eastern part, which is strongly built for prison purposes, to the uses of a criminal asylum. This can be done at a much smaller expense than the building of a structure large enough for even a hundred such patients would require. The plan would be to tear out the present block of cells in this part of the Westborough buildings, and

AN ASYLUM FOR CRIMINAL AND DANGEROUS INSANE.

construct single dormitories on the side next the yard, leaving the east side open, for a ward or corridor. The other three sides of the eastern yard can be treated in the same manner, and such other portions of the buildings as may be necessary, can be taken for dormitories, day-rooms, workshops, and the other uses of such an asylum. The space is ample, and we have procured estimates of the capacity and cost of such alterations, amounting to about \$30,000 for the internal changes, which would provide room for 100 patients in single and double dormitories, with proper rooms for attendants, officers, etc. These wards and dormitories could be occupied by any class of the insane; but, if the dangerous and criminal insane should be placed there, it would further be needful to build external walls, enclosing areas for gardens, etc. There is now an enclosure outside the Westborough buildings, which could be used and extended as might be found necessary, in order to give the patients of the proposed asylum space for doing garden-work, while the extensive farm would furnish employment for such other patients as would not need the restraint of an enclosure. Such portions of the main building as would not be needed for the asylum patients could be occupied, at least temporarily, by epileptic patients of the more troublesome kind, transferred from the present State hospitals, where they now interfere very seriously with the treatment of the ordinary insane. In this way, perhaps, 250 patients could be accommodated at a cost of \$60,000.

2. *A Prison Asylum.*

If a wholly separate asylum is not at present practicable, the Legislature may prefer the extension of a wing added to the Concord State Prison, where some of these wards of the State shall be treated by a medical superintendent with his force of attendants. The advantages of such a plan will be a central position, less danger of escapes, and better facilities of speedy recapture, and the ease of transportation of patients from the State Prison to the asylum. It seems quite feasible to use for the convict insane a portion of the State Prison remote from the main prison, and containing 36 dormitories, with a corridor about 12 feet wide. Beyond this,

CRIMINAL WARDS CONNECTED WITH EXISTING HOSPITALS.

towards the west, is a space of some four acres inside the prison enclosure, where a separate building large enough for 100 insane persons could be built and furnished for less than \$75,000, and where a separate yard might be fenced off, in which the insane criminals could do their out-door work. Outside the main enclosure is another and smaller yard, containing some eight or ten acres, which could also be cultivated by the insane men who did not need to be watched so strictly as those working inside the main wall. That portion of the prison-grounds where these buildings and yards for the criminal insane might be located, is now mostly unused, and only makes a wide space which it is necessary to guard. The building above mentioned, containing 36 dormitories, is a cross-wing, running east and west, immediately beyond the chapel, under which is a large unoccupied room more than 100 feet square, which might be used in part for the insane or their attendants. Beyond this cross-wing is the prison kitchen and laundry, and near by the boiler-house, so that there would be no more difficulty in heating and provisioning the proposed asylum than now exists with regard to the rest of the prison.

3. *One or more Criminal Wards connected with Existing Hospitals.*

This third alternative, although it would be very disagreeable to the superintendent of any hospital, with which a ward for criminal and dangerous patients should be permanently connected, may be mentioned as a temporary expedient, which, if successful, might become a permanent feature of some one hospital. Something resembling this plan already exists at the new Worcester Hospital, where about sixty men of the class referred to are now under treatment. Nearly half of these are in a single ward, and from eight to ten per cent of the whole number are generally under restraint, or in seclusion, or both. Another hospital ward, accommodating as many more of this class as are at Worcester, would provide for the present number of criminal and dangerous men in all our hospitals and asylums.

A NEW AND DISTINCT ASYLUM.

4. *A New and Distinct Asylum.*

Should the Legislature see fit to appropriate a sum large enough to build and furnish an asylum wholly new, in a different location from any mentioned, it would not be safe to estimate the cost of construction for 150 patients at less than \$150,000, and \$200,000 would be nearer the probable cost, even if economically built. The annual cost of carrying on such an establishment would hardly be less than \$35,000 for 150 patients, or \$30,000 for 100 patients. Such a separate asylum, specially built for the purpose, would have many advantages; but it could not be built and put in readiness within less than a year from the time it was begun, while the buildings contemplated by any of the other alternatives could be put in readiness within six months, with due diligence.

Of these four plans, the Board, upon the whole, would give the preference to that first named for adapting the buildings owned by the State at Westborough to the uses of an insane asylum, and occupying it, in the first instance, with that special class of the insane which the Legislature of 1881 had in contemplation in its Resolve chap. 33. These buildings, with the alterations proposed, could be taken for any other class of the insane, so soon as more suitable quarters should be provided for the criminal and dangerous lunatics at some future time. Meanwhile the experiment of this classification could be tried at no great cost for construction, and under conditions easily changed, if the policy adopted were found to need change, as might very well happen.

II.—FUTURE PROVISION FOR THE INSANE OF MASSACHUSETTS.

As will sufficiently appear from statements already made in this Report, and from the statistical facts concerning insanity presented in the Appendix, there will soon be occasion to provide further accommodations for insane persons in this Commonwealth,—either for the chronic insane, who are more than nine-tenths of the whole number, but may be divided into three or four distinct classes,—or for the recent and possibly curable insane, of whom also there are several classes.

FUTURE PROVISION FOR THE INSANE OF MASSACHUSETTS.

What these distinctions are has been pointed out in general terms in the preceding pages. They have more than a technical importance, because it is with reference to this classification that provision can best be made for our insane population (now numbering more than 5,000), when it becomes necessary to build new establishments or enlarge existing ones for their accommodation. We have already indicated how the buildings owned by the State at Westborough can be adapted, by alterations comparatively inexpensive, to the use of 250 insane persons; but this is only a little more than the increase of our insane in a single year. The great farm at Westborough could be used, however, for the erection of detached buildings for the chronic insane,—either large buildings like those at the Willard Asylum, in New York, or smaller buildings, more resembling cottages, such as are in use at some of the European asylums. The cost of erecting and of carrying on these detached buildings is small, in comparison with the outlay necessary for building and carrying on large hospitals, like those at Danvers and Worcester. The estate at Westborough is well situated for such buildings, and one of the detached houses now standing there (the so-called Garden House) might be fitted up for the reception of a family of insane persons at very little expense. Probably the whole outlay necessary to convert the Westborough establishment into a good asylum for the chronic insane, capable of holding 500 inmates, would not exceed \$200,000, or at the rate of \$400 for each inmate. The annual cost of carrying on an establishment of this kind would be somewhat less *per capita* than the cost in the Chronic Asylum at Worcester, because the Westborough farm, like that at Northampton, can be made to furnish a considerable part of the support of the inmates, thus giving them a better diet, without additional expense. Probably the weekly cost at such an asylum as is proposed at Westborough would not exceed \$3 at present prices.

The classifications in regard to sex, form of disease, etc., already mentioned in this Report, can be gradually made,—some without legislation, and others when the Legislature shall approve; and by such prospective classification an asy-

FUTURE PROVISION FOR THE INSANE OF MASSACHUSETTS.

lum may perhaps be furnished in some of the existing buildings, where persons of moderate means may be supported at their own expense, or that of their friends, without becoming paupers, or being compelled to associate with certain grades of the insane poor. Such an asylum would be very useful; and, in connection with it, there might be established a small hospital for curable cases among persons of the same class, which would receive, perhaps, a fourth part of the recent cases occurring in the State during the year; and thus relieve, to this extent, the Danvers Hospital, which now has too many recent cases.

Whenever a new hospital for the insane shall be built at the expense of private charity, — perhaps in the proposed reconstruction of the McLean Asylum, in the country, with enlarged and more detached buildings, — provision should be made therein for the separate treatment of certain forms of recent and curable insanity. What this treatment should be is well understood by the superintendents of our present hospitals, but certain defects in the existing buildings prevent them from realizing the best methods of treatment. This fact has been well set forth by Dr. Bancroft, of the New Hampshire Asylum for the Insane at Concord, where a few patients from Massachusetts are ordinarily found; and, no doubt, hospital-builders in New England will hereafter follow, as near as they can, the theories laid down by Dr. Bancroft. These are, briefly, that the treatment of insane patients should not be made to conform to a monotonous hospital architecture, but, on the contrary, that hospitals should be varied in their construction to meet the needs of various classes of patients. This can better be done from the funds of some well-endowed charity, like the Massachusetts General Hospital, than by appropriations drawn from the treasury to which the taxpayers of the Commonwealth contribute.

The larger cities of Massachusetts — Lowell, Worcester, Lynn, Lawrence, Springfield, etc. — should provide, as some of them are already doing, for the care of their own chronic and harmless insane in city asylums, such as the Boston Lunatic Hospital was when first established. The population of several of these cities is now nearly as large (and will soon be

REMOVAL OF THE REFORM SCHOOL FROM WESTBOROUGH.

larger) as the population of Boston in 1838; and the same necessity exists, in all these cities, for the care of this class of the insane near the residence of their friends.

Encouragement should also be given, so far as possible, for the boarding of chronic and quiet insane persons in private families, under State supervision, as has been done so successfully in Scotland. Few good boarding-places of this kind are now attainable; but the demand will naturally increase the supply.

III. — THE REMOVAL OF THE REFORM SCHOOL FROM WESTBOROUGH.

Whether the Westborough buildings shall be taken for the use just mentioned or not, it seems clear to this Board that they should no longer continue to be occupied by the State Reform School. This institution, which at one time had more than 600 pupils, has now but little more than 100, and therefore does not need and cannot conveniently use the extensive buildings of the main establishment for this small number of boys. The so-called "Trust Houses," three in number, are insufficient for the whole school; and, even if they had room enough, they are too near the main building to be with propriety occupied by Reform-School boys, while another class of the public dependants should be occupying the main buildings. In case of absolute necessity, the Farmhouse might be used for a single family of boys; and perhaps it would be well, whatever change takes place in the Westborough buildings, that a family of boys should remain during the season in the Farmhouse, and carry on the work of the large Westborough farm until the new occupants of the main building shall be ready to do so.

There are other reasons for the removal of the Reform-School boys from Westborough, besides the unfitness of the buildings and the saving in expense which would doubtless follow their establishment at Lancaster, as proposed on a preceding page of this Report. This Board regards it as highly important that the laws fixing the age of boys sentenced to the Reform School, and the length of their continuance in the school itself, should be materially changed. The operation

LIMIT OF AGE IN THE REFORMATORIES.

of the present laws has been to accumulate in the two State Reformatories a large number of boys and girls (that is to say, large in proportion to the small number remaining in these schools), who, from age and moral character, have been unsuitable subjects for the discipline of such reformatories. It is from this cause mainly, though by no means wholly, that the troubles of the State Reform School for the last ten years have sprung; and, now that the administration of these laws has failed to remedy these evils entirely, it is expedient that the laws themselves should be changed.

The changes in the law should have two objects,—to reduce the maximum age for boys sent to the Reform School, and for girls committed to the Industrial School, and to shorten the time during which they may remain in these schools. It seems proper that this maximum age should be fixed for boys at fourteen years, and that no boy who has passed that age even by one month should be admitted to the Reform School. The maximum age for girls might be a year later,—fifteen years; and neither boys nor girls should be allowed to remain in the reformatories more than three years consecutively, nor more than two years, if that length of time would bring them to the age of seventeen. But their sentence might be during minority, as at present; the time after the age of seventeen, or any earlier age at which they might leave the schools, to be passed under the supervision of the Trustees and of this Board, as is the case at present with the pupils of these reformatories who have left them, but are not yet of age; or, what would perhaps be preferable, the sentence itself might be for a definite time,—two years or three years, as the limit of age might require. A sentence strictly alternative—that is, imposed by the court, to be served in one or the other of two places—has not been found advisable in practice; but this Board, upon application of the Trustees, should have authority to transfer incorrigible inmates to a suitable prison.

IV. — THE BOARDING-OUT OF YOUNG CHILDREN.

In connection with the subject just considered,—the proper age at which children should be discharged from a

THE BOARDING-OUT OF YOUNG CHILDREN.

public institution, — another topic often mentioned in the Reports of this Board and of the Board of State Charities may here be taken up. We allude to the placing-out of young children in families where their board is paid. The present system is to pay board for infant children up to the age of two years, and, in some exceptional cases, beyond that; but to require families who take older children from the State establishments, either to adopt them, if below the age of eight, or to support them without compensation, or else to pay compensation for their services. It is true that the Trustees of the State Primary School have authority to pay the board of children under eight years, who may be placed from that school; but little has been done under this power, though granted two years ago. This Board has therefore prepared a plan for the boarding-out of such children, in accordance with its vote of Dec. 10, 1881, printed on p. xxii. This plan in substance is as follows: (1) That the provisions of chap. 142 of the Acts of 1880 be extended to all children for whom this Board is responsible up to the age of sixteen years, leaving it discretionary with the Board to maintain them in an institution or in a family. (2) That the Board be authorized, as hereafter recommended, to send any indigent child between the ages of three and sixteen, having no known settlement in the State, direct to the State Primary School, without passing through the State Almshouse at Tewksbury, or being classed in any way as a pauper. (3) That a small appropriation, not exceeding \$5,000, be made for the support in families of such indigent children, under the age of eight years, as it may not be expedient to admit to the State Primary School or to retain there; and that the appropriation for outside foundlings be made large enough to pay for the board of children under the age of three years in suitable families, under medical supervision.

V. — PAUPERISM IN CITIES AND TOWNS.

The statistics given in the Appendix, and the facts stated in Part Third on this subject, are worthy of careful examination. Some legislation may also be found necessary in regard to matters upon which the changing circumstances of the

THE DESERTION OF WIVES AND CHILDREN.

State, or the acquired experience of this Board, indicate that new laws should be framed to meet new exigencies. One of these matters relates to the convenience both of the State and of the municipal officers; which would be greatly promoted by a law authorizing this Board to send any poor person, not having a legal settlement in the Commonwealth, but soliciting public relief therein, to any State Almshouse, to the State Primary School, or to any State or place where he may belong, or to friends able and willing to provide for him; whenever, in the judgment of this Board, the health or interest of such person, or the public good, will be promoted thereby. The direct admission of unconvicted children to the State Primary School, just mentioned, could take place under such a law.

Other legislation is needed in regard to the support of wives and children, and their desertion by those who should support them. There is a lack of power by direct statute at present to compel husbands and fathers to support their families. The desertion of wives and children in this community is an increasing evil; and there are pauper families living to-day in defiance of our marriage laws, and still receiving public relief. The fact of desertion can only be reached indirectly through the Vagrant Act, which magistrates are often unwilling to put in force. Consequently, men receiving abundant wages now squander them in vice, and pauperize their families with impunity. There is ample power to compel a man to support his illegitimate child; but the more sacred ties can be severed with impunity. There is also grave need of distinct legislation for the protection of infant life. The first desire of a mother of an illegitimate child, overpowering even the maternal instinct, is to avoid exposure and consequent disgrace. The child must be disposed of at any risk. When not murdered directly, or left exposed to the chances of death or the charities of the public, it is often given up for a stipulated sum, paid down, on condition that no questions are asked; or it is put to board with some unsuspecting woman for such a sum, payable weekly, in advance. After a time the mother absconds, leaving no clew to her identity; and the parties thus cheated then come upon the State for relief and indemnification. Their

PAUPERISM IN CITIES AND TOWNS.

past loss cannot legally be made up to them ; and, if the child is taken by the State under such circumstances, it is an advertisement to mothers of illegitimate children everywhere, that they can come to Massachusetts and dispose of them with impunity. All parties so receiving children should be closely restricted to the infants of those who will give their true name and residence, and sufficient guaranties for the payment of their bills ; and in all cases, except where the parents are well-known citizens, the written consent of this Board or of the local Overseers should be required. If this policy be carried out, and detention at the Women's Prison be made the penalty for abandoning a child directly or indirectly, and if the mothers be moderately aided to rear their offspring, the foundling nuisance will be in great measure abated. Abandonment of infants is, in most cases, practical infanticide. As the law now stands, the mother can only be taken for assault when she deserts her child outside a building, and even in this case many magistrates will not grant a warrant ; but, if the infant be left six inches across a threshold, she has committed no legal offence, and cannot be reached by the criminal code.

It seems desirable, also, that there should be further legislation for the protection of a class of children, who, by reason of the neglect, crime, drunkenness, or other fault of friends, are in imminent danger of growing up without salutary parental control and education, or in circumstances exposing them to lead idle and dissolute lives. The Act of 1866, "Concerning the care and education of neglected children," is a step in the right direction ; but outside of the larger cities it has been found cumbersome and expensive, and beyond Boston its provisions are rarely executed. But, even if they were brought into more general use, their operation would not reach the evil now complained of. Parents desert their children, leaving them to the tender mercies of the world, or are removed from their oversight by imprisonment for drunkenness or other vice ; and their children, if settled in the Commonwealth, are provided for by the Overseers of the town of settlement, or, if unsettled, by this Board. After a brief or prolonged absence, voluntary or involuntary, the parents come back and demand their children, and

THE CARE OF NEGLECTED CHILDREN.

there is no authority to prevent their return. Especially is this true of the larger class of such children provided for by the Overseers of the Poor. No matter if the desertion and return are periodic, and morally certain to occur again,—the Overseers have no discretion,—the father or mother is sober and at work to-day, and the law takes no account of the morrow. The children thus provided for by the Board are sent to the State Primary School, and there brought under good influences; and, if permitted to remain in the Board's custody, they are later placed out in families, where the influence of a good home will develop whatever they have retained of latent good. But, on the return of the erring parent, the demand for the child's return cannot remain unheeded. The best labors of conscientious men and women for months, perhaps years, are neutralized in a day, and later may again be needed,—each succeeding release of the child from the Board's care doing it moral harm.

It is therefore suggested that the district, municipal, and police courts and trial justices in their several jurisdictions, be permitted, on application of this Board or its authorized agent, to commit children having no known settlement in the Commonwealth, under the age of fourteen years, and having no present home or means of support, to the custody of this Board or the State Primary School, thus to remain until the age of sixteen, unless sooner legally discharged; whenever it shall be made to appear to such court or magistrate that the well-being of the child and of the community will be best served by such committal; and, further, that the same courts be authorized, on the application of Overseers of the Poor, to commit such children having known settlements to the custody of the Overseers of their town of settlement under the same conditions.

VI. — THE SMALL-POX IN MASSACHUSETTS.

It will be seen by the remarks on this subject in Part First that the National Government has been corresponding with the Canadian Government, with a view to checking the spread of small-pox from Canada into New England, thus far without result. Nearly half the cases of small-pox which

THE SMALL-POX IN MASSACHUSETTS.

have appeared in Massachusetts during the year 1881 seem to have come, directly or indirectly, from Canada. A considerable number, however, were infected from paper-rags in towns where the manufacture of paper is carried on. Our present laws seem to be sufficient to procure the disinfection of such materials, provided some practical way of effecting it could be found. The law on this subject has been for a long time upon our statute book, and now stands in chap. 80 of the Public Statutes (sects. 44-48) as follows:—

SECT. 44. When, upon the application of the board, it appears to a justice of the peace that there is just cause to suspect that baggage, clothing, or goods, found within the town, are infected with the plague or other disease dangerous to the public health, he shall, by warrant directed to the sheriff or his deputy, or to any constable, require him to impress so many men as said justice may judge necessary to secure such baggage, clothing, or goods, and to post said men as a guard over the house or place where such articles are lodged; who shall take effectual care to prevent persons from removing or coming near the same, until due inquiry is made into the circumstances.

SECT. 45. The justice may by the same warrant, if it appears to him necessary, require the officers, under the direction of the board, to impress and take up convenient houses or stores for the safe keeping of such articles; and the board may cause them to be removed thereto, or otherwise detained, until, in the opinion of the board, they are freed from infection.

SECT. 46. The officers, in the execution of the warrant, shall, if need be, break open any house, shop, or other place, mentioned in the warrant, where such articles are; and may require such aid as is necessary to effect the execution of the warrant. Whoever neglects or refuses to assist in the execution of the warrant, after being commanded to assist by either of said officers, shall forfeit a sum not exceeding ten dollars.

SECT. 47. The charges of securing such articles, and transporting and purifying the same, shall be paid by the owners, at such rates and prices as may be determined by the board.

SECT. 48. When a sheriff or other officer impresses or takes up any houses, stores, lodging, or other necessities, or impresses men, as provided in this chapter, the several parties interested shall be entitled to a just compensation therefor, to be paid by the town in which such persons or property are so impressed.

Perhaps the best way to secure a practical disinfection of paper stock used in the paper-mills of Massachusetts would

THE SMALL-POX IN MASSACHUSETTS.

be through a conference with the mill-owners in Massachusetts directly interested in this matter; and such a conference is proposed early the present year, not only to effect this purpose, but also to secure a more satisfactory compliance with sect. 54 of the same chapter, which concerns vaccination in manufacturing and other establishments.

SECT. 54. Incorporated manufacturing companies, superintendents of almshouses, state reform schools, industrial schools, lunatic hospitals, and other places where the poor and sick are received, masters of houses of correction, jailers, keepers of prisons, the warden of the state prison, and superintendents or officers of all other institutions supported or aided by the state, shall, at the expense of their respective establishments or institutions, cause all inmates thereof to be vaccinated immediately upon their entrance thereto, unless they produce sufficient evidence of previous successful vaccination within five years.

This statute, although it has been in existence for a long time, is still quite imperfectly enforced, requiring to be frequently brought to the attention of persons who are required by law to secure vaccination in the establishments named. We have also found that city and town officials, school-committee men, and others have not attended so carefully as they should have done to the vaccination of children in the public schools, and the other inhabitants. A doubt seems to exist in some quarters whether local boards of health have the right to enforce vaccination under their general sanitary powers, or whether this right belongs only to the selectmen of towns and the mayor and aldermen of cities, under sect. 52 of chap. 80 of the Public Statutes, which is as follows:—

SECT. 52. The selectmen and mayor and aldermen shall require and enforce the vaccination of all the inhabitants, and, when in their opinion the public health requires it, the revaccination of all the inhabitants who do not prove to their satisfaction that they have been successfully vaccinated or revaccinated within five years. Every person over twenty-one years of age, not under guardianship, who neglects to comply with any such requirement, shall forfeit the sum of five dollars.

Further requirements and authority in regard to public vaccination are found in sects. 53 and 55 of the same chapter, which are these:—

POWERS OF LOCAL HEALTH BOARDS.

SECT. 53. Towns shall furnish the means of vaccination to such of their inhabitants as are unable to pay for the same.

SECT. 55. Each town may make further provision for the vaccination of its inhabitants, under the direction of the board of health or a committee chosen for the purpose.

The powers and duties of the local boards of health in cases of infectious disease are partially set forth in sects. 40, 41, of the same chapter, as follows :—

SECT. 40. When a person coming from abroad, or residing in a town in this state is infected, or lately has been infected, with the plague or other sickness dangerous to the public health, except as is otherwise provided in this chapter, the board shall make effectual provision in the manner which it judges best for the safety of the inhabitants, by removing such person to a separate house or otherwise, and by providing nurses and other assistance and necessaries, which shall be at the charge of the person himself, his parents, or master, if able; otherwise at the charge of the town to which he belongs; or, if he is not an inhabitant of any town, at the charge of the commonwealth.

SECT. 41. If the infected person cannot be removed without danger to his health, the board shall make provision for him, as directed in the preceding section, in the house in which he may be; and may cause the persons in the neighborhood to be removed, and take such other measures as it judges necessary for the safety of the inhabitants.

It is the opinion of this Board that the boards of health now have jurisdiction in regard to compulsory vaccination, as well as other matters named in the above sections; but, since a doubt exists on this subject, we would recommend that the Legislature expressly confer the power of enforcing vaccination on the local boards of health. It should also be made obligatory on local boards to notify this Board immediately on the occurrence of any case of small-pox within their respective jurisdictions, under penalty of forfeiting any claim to reimbursement for the care of small-pox patients who are State paupers.

VII. — THE DISPOSAL OF THE SEWAGE OF THE CITY OF WORCESTER.

The state of the case in regard to this subject has been briefly presented on a previous page, and with much more detail in the Sanitary Appendix. The general conclusions of

THE DISPOSAL OF SEWAGE OF THE CITY OF WORCESTER.

the Board may here be given. By chap. 67 of Resolves of 1881, it was made the duty of the Board to examine and consider the question of the disposition of the sewage of the city of Worcester, especially with a view to prevent the pollution of the Blackstone River and its tributaries, and to report its conclusions in print to the next Legislature, with recommendations as to a definite plan for the prevention of such pollution. The Board has attended to the duties thus imposed, and has examined that portion of the Blackstone River of which complaint had been made, and also the sewerage system of Worcester itself. Two hearings have taken place, at which all parties interested were notified to be present; and the Board, as already mentioned, has employed C. F. Folsom, M.D., of the National Board of Health, and J. P. Davis, C.E., of New York. These experts, together with the Health Officer of the Board, H. P. Walcott, M.D., have fully examined the subject of the purification of the Worcester sewage, and, after full consideration, have submitted to this Board the report which appears in the Sanitary Appendix.

The authorities of the city of Worcester and the town of Millbury were invited to employ, at their own expense, such persons as might seem to them best qualified to examine, in their behalf, the matters referred to, and to report to this Board.

The city of Worcester failed to comply with this request. The town of Millbury secured the services of Col. G. E. Waring, jun., of Newport, R.I., whose report has been presented, and is printed in the Sanitary Appendix.

The plan proposed by Col. Waring, in this very interesting and able report, is, in the opinion of this Board, open to the following objections:—

First, That the scheme for dividing the flow of the sewage between two narrow channels, one at each side, with a wider channel between them for surface drainage,—the whole to form a single channel whenever, in times of freshet, the surface drainage may rise sufficiently to overflow the partition walls,—is not satisfactory for the following reasons:—

1. The very important portion of the sewer beneath the road-bed of the Boston and Albany Railroad is, in its present

OBJECTIONS TO COL. WARING'S PLAN.

form, barely capacious enough to receive and carry off the storm-flow of Mill Brook. The device recommended would, however it were carried out, impair seriously this capacity, while the cost will be very considerable, — little, if any, less than that of a separate sewer for the sewage proper.

2. Dividing the sewage between two channels must greatly diminish the scouring power of the current, by reducing the flow in each of the open ditches so formed, — ditches open, that is, to the main sewer.

3. The large surface that would become coated with sewer-slime, and be exposed to the air of the main sewer, would also be an objection.

4. The great capacity of the main sewer would still constitute it, as now, a vast receptacle for sewer-gases.

Second, The plan of allowing the sewage to flow off upon low lands, advantageous as it appears, and advantageous as it would be, to avoid pumping, seems to us highly objectionable.

1. It cannot be done except upon swampy land, unable to receive more water without flooding. If ditched, as proposed, the ditches would probably fill with water drawn from the soil. Vegetation could dispose of little more water than it now does, and could do little towards absorbing any of the sewage.

2. There would be no aëration except upon the surface; no alternation of air and water in the same interstitial spaces in the ground; no oxidation of organic matters contained in the sewage.

On the other hand, the plan presented by the expert commission seems to meet the objections above enumerated, with well-considered remedies: —

I. Once pumped to a sufficient height, the sewage will flow upon a tract of land of sufficient extent, at such a height above the natural drainage as to give a body of earth, which, when properly drained and prepared, will admit of alternate flow of air and water; of fresh air through well-moistened earth, from which the sewage has recently drained off; of newly supplied sewage through freshly aërated soil, on every side of every pebble, of every grain of sand, of

THE WORCESTER SEWAGE.—CONCLUSION.

every lump of marl or loam,—thus becoming a portion of the vast lung-surface by which the purification of the sewage is to be brought about through the action of the free oxygen of the air on the oxidizable matter in the sewage.

II. The proposed sewage-pipe must perform perfectly all that the three-channel plan of Col. Waring would, as it seems to us, do less perfectly.

Col. Waring's plan—though it does not, in our opinion, offer so satisfactory a system of irrigation as that proposed by us—brings to this method of sewage-disposal the approval of a very eminent authority in matters of this sort, especially in the light of his own recent critical examination of the most approved methods of drainage both in England and on the Continent. As no plan for the purification of so large an amount of sewage has yet been put in practice in this country, all methods proposed are, to a certain extent, experimental. Still, after mature deliberation, the Board accepts with great confidence the conclusions stated in the report of its experts; being convinced that the system of “intermittent downward filtration,” supplemented, if necessary, by broad irrigation, is best adapted to the existing condition of things. And we therefore recommend the system of intermittent downward filtration, submitted in the report of the experts appointed by this Board, as, in the judgment of the Board, the best method of disposing of the sewage of the city of Worcester.

The Board has thus presented the general and special information required by law to be given in its Report, and has also proposed definite recommendations for amendment of existing laws, and for their better administration. It remains to add, in recapitulation, what has already been said under the different divisions of this Report,—that the manifold interests committed by the State to the care of this Board have received, during the past year, the attention which their importance seemed to require. It is believed that the Commonwealth at no previous period has been more thoroughly inspected, in regard to the public health, the number and condition of the insane, and the public charities of all kinds, than during the year which this Report covers.

APPENDIX.

THE PAUPER ABSTRACT.

WITH ADDITIONAL TABLES OF VALUATION, ANNUAL COST,
NUMBERS, ETC., IN THE STATE ESTABLISHMENTS,
AND STATISTICS CONCERNING INSANITY
IN MASSACHUSETTS.

COMPILED BY THE INSPECTOR OF CHARITIES.

THE PAUPER ABSTRACT.

PAUPERISM IN CITIES AND TOWNS.

TABLE I. — *Expense and Number of the Poor in the Massachusetts Cities and Towns for the Year ending March 31, 1881.*

[The State Poor in Institutions not included.]

PART I. — COST OF SUPPORT AND RELIEF.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup- port or Relief July 1, 1881.
	Expense at Almshouses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns.		
BARNSTABLE.														
Barnstable . . .	\$1,430	\$726	\$142	\$2,298	20	\$2,440	73	\$258	\$4,996	93	-	\$950	\$4,046	89
Brewster . . .	824	-	-	824	5	1,592	22	185	2,601	27	-	196	2,405	28
Chatham . . .	897	401	-	1,298	9	2,588	22	216	3,702	31	-	239	3,463	23
Dennis . . .	1,304	345	224	1,873	13	3,609	78	30	5,512	91	-	7	5,505	79
Pastham . . .	-	184	749	923	7	190	3	-	1,123	10	-	-	1,123	9
Falmouth . . .	775	803	-	1,578	16	908	9	133	2,619	25	-	389	2,230	19
Harwich . . .	1,125	260	-	1,385	14	3,356	134	150	4,891	148	\$40	232	4,619	82
Mashpee . . .	-	-	238	238	2	314	2	-	552	4	-	-	552	4
Orleans . . .	850	-	-	850	6	645	8	10	1,505	14	-	63	1,442	6
Provincetown . . .	1,225	225	117	1,567	17	2,788	118	450	4,805	135	20	42	4,743	158
Sandwich . . .	1,647	878	-	2,525	26	2,037	77	243	4,805	103	25	497	4,283	96
Truro . . .	-	-	683	683	4	265	10	75	1,023	14	-	94	929	15
Wellfleet . . .	317	-	98	415	9	1,808	58	45	2,268	67	-	81	2,187	42
Yarmouth . . .	1,312	185	-	1,497	15	2,196	94	65	3,758	109	2	53	3,703	105
Total . . .	\$11,706	\$4,007	\$2,251	\$17,964	163	\$24,336	708	\$1,860	\$44,160	871	\$87	\$2,843	\$41,230	755

PAUPERISM IN CITIES AND TOWNS.

	\$267	\$119	\$386	5	\$588	9	-	\$974	14	\$8	\$9	\$957	17
BERKSHIRE.													
Adams	-	\$227	227	3	65	-	-	292	3	-	-	292	3
Alford	-	174	882	9	244	2	\$41	1,167	3	10	3	1,154	8
Becket	-	208	577	4	1,251	16	-	1,828	20	4	134	1,690	25
Cheshire	-	-	238	3	58	2	15	311	5	-	-	311	3
Clarksburg	-	-	1,436	7	817	14	128	2,381	21	-	79	2,302	30
Dalton	-	199	543	5	52	2	47	841	7	-	-	841	3
Egremont	-	-	-	-	52	-	-	52	-	-	-	52	1
Florida	-	-	-	-	628	16	7	2,069	25	10	26	2,033	10
Gt. Barrington	-	434	1,434	9	89	2	15	293	4	-	-	293	3
Hancock	-	-	189	2	533	11	-	1,219	19	-	72	1,147	14
Hinsdale	-	-	686	8	359	9	-	492	10	-	-	492	12
Lanesborough	-	-	133	1	359	9	-	4,666	52	54	37	4,575	61
Lee	1,476	1,072	3,388	22	1,278	30	-	1,871	11	-	48	1,823	12
Lenox	-	371	1,101	5	770	6	-	218	3	-	-	218	7
Monterey	-	36	36	-	182	3	-	229	3	-	-	229	4
Mt. Washington	-	-	200	3	-	-	29	168	1	-	-	168	1
New Ashford	-	-	168	1	-	-	-	1,595	19	21	244	1,330	19
New Marlboro'	-	299	1,074	8	415	11	106	3,384	44	85	43	3,256	44
North Adams	1,300	377	2,457	20	627	22	300	651	9	99	132	420	7
Otis	-	-	332	3	319	6	-	388	2	20	-	368	3
Peru	-	-	156	1	207	1	25	8,591	173	118	179	8,294	192
Pittsfield	2,084	1,276	3,440	30	3,769	140	1,382	689	11	-	21	668	9
Richmond	-	19	52	1	627	10	10	1,020	13	4	-	1,016	7
Sandisfield	-	174	705	7	228	6	87	955	11	-	52	903	10
Savoy	654	-	719	7	202	4	34	1,116	17	-	-	1,116	15
Sheffield	-	91	592	9	485	8	39	1,883	13	-	-	1,883	13
Stockbridge	-	366	1,485	8	322	5	76	360	3	10	-	350	2
Tyringham	-	-	350	3	10	-	-	241	5	5	11	225	6
Washington	-	-	142	2	87	3	12	825	22	-	14	811	25
W. Stockbridge	-	51	237	3	508	19	-	1,042	8	-	6	1,036	9
Williamstown	-	-	521	4	281	4	240	446	10	-	-	446	4
Windsor	-	-	437	4	9	6	-	-	-	-	-	-	-
Total	\$5,781	\$5,230	\$24,542	196	\$15,122	367	\$2,593	\$42,257	563	\$448	\$1,110	\$40,699	579
BRISTOL.													
Acushnet	\$588	\$33	\$621	7	\$496	12	\$52	\$1,169	19	-	\$67	\$1,102	22
Attleborough	797	1,611	2,568	15	1,723	44	300	4,591	59	\$426	557	3,608	52

THE PAUPER ABSTRACT.

TABLE I. — COST OF SUPPORT AND RELIEF — Continued.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup- port or Relief July 1, 1881.	
	Expense at Alms-houses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns.			
BRISTOL—Con.															
Berkley	\$58	\$261	\$113	\$432	7	\$217	5	\$96	\$745	12	\$46	\$21	\$678	14	
Dartmouth	880	903	—	1,783	23	1,898	22	75	3,756	45	13	398	3,345	46	
Dighton	451	359	—	810	5	119	1	402	1,331	6	6	132	1,193	7	
Easton	3,046	875	—	3,921	27	4,062	81	240	8,223	108	125	602	7,496	95	
Fairhaven	1,497	439	—	1,936	13	1,183	20	110	3,229	33	—	826	2,403	27	
Fall River	11,527	7,493	—	19,020	145	20,905	600	3,083	43,008	745	3,712	1,409	37,887	471	
Freetown	25*	150	—	125	4	728	12	158	1,011	16	—	—	1,011	33	
Mansfield	749	238	—	987	10	1,817	36	125	2,929	46	96	246	2,587	38	
New Bedford	10,983	14,352	—	15,335	95	28,156	510	—	43,491	605	1,051	4,500	37,940	728	
Norton	682	185	—	867	7	951	8	100	1,918	15	—	367	1,918	10	
Raynham	—	182	—	182	1	2,364	18	—	2,546	19	—	—	2,179	19	
Rehoboth	552	209	—	761	14	245	22	81	1,087	36	—	126	961	36	
Seekonk	432	57	—	489	2	249	3	45	783	5	109	4	670	4	
Somerset	622	47	—	669	12	400	10	45	1,114	22	56	—	1,058	15	
Swansey	507	—	—	507	5	663	8	50	1,220	13	—	139	1,081	11	
Taunton	3,874	7,391	185	11,450	89	10,122	150	369	21,941	239	420	2,579	18,942	332	
Westport	1,154	219	—	1,373	11	1,425	36	50	2,848	47	—	98	2,750	45	
Total	\$38,374	\$25,004	\$458	\$63,836	492	\$77,723	1,598	\$5,381	\$146,940	2,090	\$6,060	\$12,071	\$128,809	2,005	
DUKES.															
Chilmark	—	\$200	\$580	\$780	5	\$20	—	\$12	\$812	5	—	—	\$812	5	
Cottage City	—	—	—	—	—	289	7	37	326	7	\$9	\$67	250	7	
Edgartown	—	780	1,029	1,809	14	890	11	—	2,699	25	—	—	2,699	27	
Gay Head	—	—	—	—	—	36	—	—	36	—	—	—	36	—	
Gosnold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tisbury	—	631	1,513	2,144	13	1,055	12	123	3,322	25	—	—	3,322	18	
Total	—	\$1,611	\$3,122	\$4,733	32	\$2,290	30	\$172	\$7,195	62	\$9	\$67	\$7,119	57	

PAUPERISM IN CITIES AND TOWNS.

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* Profit.

THE PAUPER ABSTRACT.

TABLE I.—COST OF SUPPORT AND RELIEF—Continued.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup- port or Relief July 1, 1881.
	Expense at Almshouses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns.		
FRANKLIN.														
Ashfield . . .	\$357	\$275	\$243	\$875	6	\$113	2	\$31	\$1,119	8	\$5	\$7	\$1,007	6
Barnardston . .	-	-	577	577	7	666	12	-	1,243	19	27	-	1,216	23
Buckland . . .	606	191	52	849	9	296	10	60	1,205	19	18	126	1,061	18
Charlemont . . .	544	183	-	727	5	65	-	27	819	5	-	-	819	4
Colrain	-	192	813	1,005	5	80	2	-	1,085	7	-	-	1,085	6
Conway	-	182	673	855	8	568	5	-	1,423	13	44	48	1,331	12
Deerfield . . .	-	556	1,161	1,717	12	1,155	16	-	2,872	28	68	216	2,588	26
Erving	-	-	-	-	-	889	6	-	889	6	-	280	609	4
Gill	-	355	367	722	6	153	2	44	919	8	-	-	919	6
Greenfield . . .	272	382	-	654	8	1,413	24	150	2,217	32	9	301	1,907	19
Hawley	89	-	-	89	3	50	-	41	180	3	-	-	180	2
Heath	423	-	-	423	6	-	-	15	438	6	-	-	438	7
Leverett	295	364	130	789	4	212	3	123	1,124	7	26	-	1,098	6
Leyden	-	187	579	766	8	25	1	16	807	9	-	110	697	8
Monroe	-	-	60	60	-	-	-	-	60	-	-	-	60	-
Montague	631	21	339	991	14	1,876	9	50	2,917	23	175	546	2,196	18
New Salem . .	298	-	-	298	2	369	3	50	717	5	16	3	698	2
Northfield . . .	-	228	654	882	9	297	6	16	1,195	15	-	2	1,193	11
Orange	666	359	240	1,265	9	359	8	62	1,686	17	36	130	1,520	15
Rowe	-	197	140	337	1	134	5	6	477	6	34	67	376	9
Shelburne	-	563	496	1,059	6	210	2	128	1,397	8	27	38	1,332	6
Shutesbury . . .	603	183	183	786	8	310	4	25	1,121	12	-	191	930	12
Sunderland . . .	-	189	385	574	11	98	2	10	682	13	-	-	682	10
Warwick	588	-	58	646	6	155	1	-	801	7	-	-	801	4
Wendell	641	-	-	641	4	175	6	40	856	10	-	-	818	11
Whately	-	376	1,465	1,841	12	396	1	-	2,237	13	-	-	2,237	9
Total	\$6,013	\$4,800	\$8,615	\$19,428	169	\$10,064	130	\$894	\$30,386	299	\$485	\$2,103	\$27,798	254

PAUPERISM IN CITIES AND TOWNS.

	\$587	\$533	\$279	\$1,399	8	\$767	20	\$100	\$2,266	28	\$2,994	\$2,482	\$67,124	863
HAMPDEN.														
Agawam	—	118	387	505	6	234	7	24	763	13	—	118	\$2,205	26
Blandford	—	174	47	1,251	14	39	7	45	1,335	21	\$20	—	645	14
Brimfield	1,030	119	500	619	7	343	9	172	1,134	16	50	31	1,315	19
Chester	—	1,131	—	3,737	28	6,693	166	650	11,080	191	109	382	10,589	16
Chicopee	2,606	174	933	1,107	8	197	9	30	1,334	17	40	—	1,294	175
Granville	—	168	312	480	3	241	12	23	744	15	—	48	696	16
Hampden	—	—	473	473	4	3	—	—	476	4	—	—	476	28
Holland	—	2,222	3,217	5,439	35	6,225	140	1,245	12,809	175	1,663	381	10,865	4
Holyoke	—	197	645	842	7	470	14	52	1,364	21	10	—	1,354	208
Longmeadow	—	190	630	820	9	439	6	—	1,259	15	59	8	1,192	18
Ludlow	—	346	—	1,679	19	791	15	125	2,595	34	40	—	2,555	12
Monson	1,333	—	—	184	1	316	5	55	555	6	—	43	512	24
Montgomery	—	707	457	2,722	17	709	27	481	3,912	44	57	122	3,841	7
Palmer	1,558	—	468	468	5	156	3	—	624	8	—	—	502	32
Russell	—	172	963	1,135	8	171	1	90	1,396	9	—	360	1,396	8
Southwick	—	4,689	1,787	12,161	91	3,944	70	2,948	19,053	161	882	—	17,811	5
Springfield	—	—	205	205	2	—	—	20	225	2	—	—	225	156
Tolland	—	—	573	573	7	—	1	60	756	8	47	24	685	2
Wales	—	—	229	2,602	27	2,294	35	300	5,196	62	—	143	5,033	6
Westfield	1,579	794	492	831	7	1,622	19	50	2,503	26	—	740	1,763	54
W. Springfield	—	418	163	581	4	426	13	114	1,121	17	17	7	1,097	18
Wilbraham	—	—	—	—	—	—	—	—	—	—	—	—	—	15
Total	\$14,378	\$12,491	\$12,944	\$39,813	317	\$26,203	579	\$6,584	\$72,600	896	\$2,994	\$2,482	\$67,124	863
HAMPSHIRE.														
Amherst	\$783	\$436	\$500	\$1,719	15	\$440	23	\$310	\$2,469	38	\$99	\$26	\$2,344	34
Belchertown	59	—	—	959	14	670	27	40	1,619	41	215	55	1,399	14
Chesterfield	—	—	601	601	8	494	6	50	1,245	11	—	—	1,245	16
Cummington	—	167	170	337	4	437	3	—	774	7	—	130	644	5
Easthampton	—	465	693	1,158	7	2,092	50	100	3,350	57	—	273	3,077	43
Enfield	—	—	690	690	4	69	3	—	759	7	8	307	444	3
Goshen	—	—	73	73	1	276	3	—	349	4	90	40	319	—
Granby	—	385	223	608	5	281	5	—	889	10	—	—	889	9
Greenwich	447	—	93	540	5	290	3	15	845	8	—	38	807	8
Hadley	422	377	—	799	9	382	3	88	1,269	12	—	—	1,269	13
Hatfield	—	537	205	742	5	438	12	100	1,280	17	—	—	1,280	16

THE PAUPER ABSTRACT.

TABLE I. — COST OF SUPPORT AND RELIEF — Continued.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No Receiving Sup- port or Relief July 1, 1881.
	Expense at Almshouses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns		
HAMPS. — Con.														
Huntington . . .	-	-	\$113	\$113	2	\$370	2	-	\$483	4	-	\$23	\$460	5
Middlefield . . .	-	\$173	229	402	3	380	6	\$40	822	9	-	-	822	21
Northampton . .	\$1,056	1,200	960	3,216	33	5,693	120	-	8,909	153	\$581	977	7,351	161
Pelham . . .	-	-	374	374	3	103	1	-	477	4	-	46	431	3
Plainfield . . .	-	185	290	290	2	161	3	27	487	5	-	198	289	2
Prescott . . .	253	-	253	253	3	103	2	25	381	5	-	45	336	3
Southampton . .	-	173	329	502	3	164	2	74	740	5	115	127	478	5
South Hadley . .	-	292	675	967	10	2,149	20	100	3,216	30	88	96	3,032	28
Ware . . .	1,100	357	109	1,566	13	774	14	256	2,546	27	23	65	2,508	35
Westhampton . .	-	-	281	281	2	122	2	-	403	4	39	-	364	3
Williamsburg . .	-	198	1,908	2,106	9	308	10	-	2,414	19	55	-	2,359	18
Worthington . . .	-	447	152	599	4	298	4	-	897	8	239	15	643	7
Total . . .	\$5,020	\$5,392	\$8,492	\$18,904	164	\$16,494	324	\$1,325	\$36,723	488	\$1,552	\$2,461	\$32,710	452
MIDDLESEX.														
Acton . . .	\$288	\$632	\$53	\$973	9	\$486	11	\$60	\$1,519	20	-	\$33	\$1,486	19
Arlington . . .	1,355	737	416	2,508	11	1,569	41	-	4,077	52	\$10	39	4,028	25
Ashby . . .	198	-	-	198	4	48	4	80	326	8	-	-	326	7
Ashland . . .	56	-	-	56	10	924	9	65	1,045	19	-	118	927	15
Ayer . . .	-	182	952	1,134	8	436	16	75	1,645	24	-	210	1,435	20
Bedford . . .	1,177	-	-	1,177	16	149	6	50	1,376	22	-	-	1,376	21
Belmont . . .	-	197	260	457	3	735	15	-	1,192	18	-	-	1,192	30
Billerica . . .	1,422	-	-	1,422	14	328	5	150	1,900	19	-	-	1,900	17
Boxborough . . .	-	-	109	109	1	-	-	6	115	1	-	-	115	2
Burlington . . .	644	-	-	644	5	290	10	49	983	15	10	174	799	17
Cambridge . . .	15,055	6,367	410	21,832	117	8,898	127	1,346	32,076	244	1,014	8,042	23,020	156

THE PAUPER ABSTRACT.

TABLE I. — COST OF SUPPORT AND RELIEF — Continued.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup- port or Relief July 1, 1881.
	Expense at Almshouses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns.		
MIDDLESEX — Con.														
Westford . . .	\$894	\$551	\$316	\$1,761	11	\$282	7	\$58	\$2,101	18	\$10	\$145	\$1,946	15
Weston . . .	84	168	-	252	5	165	3	45	462	8	-	-	462	9
Wilmington . .	694	-	-	694	7	103	1	100	897	8	-	-	897	7
Winchester . . .	-	179	714	893	7	1,314	43	36	2,243	50	-	175	2,068	51
Woburn . . .	2,157	2,284	-	4,441	33	2,767	103	500	7,708	136	254	419	7,035	101
Total . . .	\$66,047	\$39,800	\$10,735	\$116,582	892	\$87,328	2,007	\$11,645	\$215,555	2,899	\$3,885	\$24,009	\$187,661	2,517
NANTUCKET.														
Nantucket . . .	\$2,805	\$784	-	\$3,589	40	\$2,816	68	\$450	\$6,855	108	-	\$674	\$6,181	82
NORFOLK.														
Bellingham . . .	\$781	\$525	\$170	\$1,476	9	\$141	3	\$65	\$1,682	12	-	\$121	\$1,561	14
Braintree . . .	1,621	899	-	2,520	18	2,628	51	255	5,403	69	\$42	657	4,704	46
Brookline . . .	-	726	2,998	3,724	34	4,645	104	941	9,310	138	40	376	8,994	126
Canton . . .	907	829	65	1,801	17	3,958	40	-	5,759	57	-	1,279	4,480	44
Cohasset . . .	1,694	757	-	2,451	15	2,249	37	67	4,767	52	172	350	4,245	52
Dedham . . .	1,439	1,690	97	3,226	27	4,071	88	224	7,521	115	66	387	7,068	120
Dover . . .	-	-	149	149	1	116	3	-	265	4	-	17	248	6
Foxborough . . .	575	661	-	1,236	7	1,269	3	232	2,737	10	4	114	2,619	9
Franklin . . .	1,131	923	113	2,167	13	1,404	26	85	3,656	39	8	326	3,322	39
Holbrook . . .	-	389	478	867	6	2,195	37	75	3,137	43	-	603	2,534	28
Hyde Park . . .	-	951	289	1,240	15	1,608	59	150	2,998	74	66	329	2,603	17
Medford . . .	830	413	-	1,243	6	259	2	70	1,572	8	-	-	1,572	5
Medway . . .	1,832	746	-	2,578	17	2,598	55	214	5,390	72	-	231	5,159	53
Milton . . .	1,887	518	958	3,363	16	747	9	184	4,294	25	96	36	4,162	25
Needham . . .	418	1,775	214	2,407	16	1,677	12	150	4,234	28	-	142	4,092	19

PAUPERISM IN CITIES AND TOWNS.

	459	459	2	862	15	52	1,373	17	\$576	\$7,854	\$101,051	1,308
Norfolk	459	459	2	862	15	52	1,373	17	\$576	\$7,854	\$101,051	1,308
Norwood	412	412	2	1,447	23	91	1,950	25	10	76	1,804	30
Quincy	119	4,446	28	4,739	175	-	9,185	203	5	240	8,940	233
Randolph	613	2,586	28	5,576	106	225	8,387	134	-	1,057	7,330	131
Sharon	-	1,038	8	803	14	46	1,887	22	19	26	1,842	21
Stoughton	63	2,110	17	3,412	49	66	5,588	66	-	344	5,244	70
Walpole	-	1,840	10	934	22	150	2,924	32	-	168	2,756	11
Weymouth	1	4,582	35	7,755	165	-	12,337	200	-	649	11,688	236
Wrentham	-	1,654	12	1,302	24	169	3,125	36	-	304	2,821	40
Total	\$7,387	\$49,575	359	\$56,393	1,122	\$3,513	\$109,481	1,481	\$576	\$7,854	\$101,051	1,308
PLYMOUTH.												
Abington	\$718	\$2,121	17	\$1,646	26	\$100	\$3,867	43	\$46	\$706	\$3,115	31
Bridgewater	112	838	8	425	24	69	1,332	32	10	-	1,322	30
Brookton	250	3,624	28	6,581	128	1,452	11,657	156	-	2,230	9,427	145
Carver	269	944	7	1,214	23	37	2,195	30	-	-	2,195	33
Duxbury	224	1,749	15	1,510	24	17	3,276	39	-	262	3,014	35
E. Bridgewater	-	1,444	11	428	9	75	1,947	20	10	74	1,863	15
Halifax	386	555	6	37	3	17	609	9	-	-	609	6
Hanover	-	778	6	1,312	30	50	2,140	36	-	46	2,094	37
Hanson	-	698	4	680	24	50	1,428	28	-	193	1,235	36
Hingham	-	3,071	21	2,220	41	45	5,336	62	-	9	5,327	51
Hull	177	177	1	512	8	14	703	9	-	-	703	7
Kingston	-	930	7	878	16	125	1,933	23	-	12	1,921	29
Lakeville	337	506	4	339	7	100	1,467	9	-	-	945	11
Marion	776	776	4	661	5	30	1,107	7	-	196	1,271	20
Marshfield	-	358	4	302	3	447	1,107	7	-	10	1,097	6
Matapoisett	201	1,164	9	4,427	10	75	2,666	19	-	407	2,259	19
Middleborough	1,015	2,534	26	2,907	77	203	5,644	103	-	594	5,039	76
Pembroke	-	870	7	475	27	45	1,390	34	11	45	1,345	26
Plymouth	404	4,166	29	3,435	133	428	8,029	162	-	1,417	6,531	220
Plymouth	-	498	4	322	5	20	840	9	-	-	840	8
Rochester	-	1,063	7	676	18	-	1,739	25	-	479	1,260	18
Rockland	-	1,957	13	3,818	88	312	6,087	101	-	749	5,338	125
Scituate	816	1,725	10	2,275	28	90	4,090	38	-	241	3,581	34
South Abington	1,177	1,541	8	950	10	-	2,491	18	-	277	2,214	16
South Scituate	-	1,450	10	1,350	19	100	2,900	29	8	598	2,294	30

THE PAUPER ABSTRACT.

TABLE I. — COST OF SUPPORT AND RELIEF — Continued.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup- port or Relief July 1, 1881.	
	Expense at Alms-houses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns.			
PLYMOUTH—Con.															
Wareham . . .	\$1,030	\$213	\$59	\$1,302	10	\$1,770	40	\$225	\$225	\$3,297	50	—	\$451	\$2,846	33
W. Bridgewater .	1,154	243	—	1,397	9	292	4	394	394	2,084	13	\$23	55	2,006	13
Total . . .	\$21,721	\$10,810	\$5,705	\$38,236	285	\$38,441	830	\$4,522	\$4,522	\$81,199	1,115	\$457	\$9,051	\$71,691	1,107
SUFFOLK.															
Boston . . .	\$98,465	\$144,611	—	\$243,076	1,565	\$84,161	3,400	\$17,176	\$17,176	\$344,413	4,965	\$8,567	\$11,311	\$324,535	3,306
Chelsea . . .	—	3,400	\$1,000	4,400	23	6,000	240	1,100	1,100	11,500	263	200	1,850	9,450	205
Revere . . .	—	364	277	641	4	183	2	—	—	824	6	—	33	791	8
Winthrop . . .	—	—	297	297	2	36	1	10	10	343	2	—	—	343	1
Total . . .	\$98,465	\$148,375	\$1,574	\$248,414	1,594	\$90,380	3,642	\$18,286	\$18,286	\$357,080	5,236	\$8,767	\$13,194	\$335,119	3,520
WORCESTER.															
Ashburnham . .	\$1,408	—	—	\$1,408	8	\$587	13	\$96	\$96	\$2,091	21	—	\$130	\$1,961	18
Athol . . .	832	\$183	—	1,015	7	1,174	32	300	300	2,489	39	\$23	641	1,825	17
Auburn . . .	—	874	\$156	1,030	6	345	6	—	—	1,375	12	64	76	1,235	18
Barre . . .	997	70	65	1,132	18	496	10	68	68	1,696	28	1	79	1,616	21
Berlin . . .	—	—	936	936	6	345	8	30	30	1,311	14	—	—	1,311	12
Blackstone . . .	1,860	917	—	2,777	27	4,167	130	225	225	7,169	157	98	320	6,751	105
Bolton . . .	572	—	—	572	9	53	2	—	—	625	11	—	—	625	20
Boylston . . .	140	161	43	344	7	16	—	40	40	400	7	—	—	400	7
Brookfield . . .	1,298	768	156	2,222	16	282	6	130	130	2,634	22	64	191	2,379	19
Charlton . . .	728	158	—	886	7	704	9	50	50	1,640	16	56	209	1,375	19
Clinton . . .	1,512	904	220	2,636	12	905	29	—	—	3,541	41	—	—	3,541	45
Dana . . .	566	—	—	566	5	793	5	40	40	1,399	10	—	238	1,161	11
Douglas . . .	209	311	—	520	12	1,067	20	200	200	1,787	32	104	—	1,683	32

PAUPERISM IN CITIES AND TOWNS.

	607	187	794	5	491	9	—	1,285	14	29	—	1,256	16
Dudley	5,286	1,693	7,245	46	8,923	150	—	16,168	196	155	1,219	14,794	168
Fitchburg	1,645	214	2,070	21	943	25	219	3,232	46	15	200	3,017	38
Gardner	1,516	319	2,462	13	2,517	35	1,885	6,864	48	37	440	6,387	42
Grafton	585	—	585	6	742	9	50	1,377	15	8	36	1,335	9
Hardwick	631	192	823	11	442	7	410	1,675	18	36	33	1,606	11
Harvard	1,091	287	1,378	12	374	15	325	2,077	27	79	—	1,998	20
Hinbardston	998	—	1,179	10	542	9	67	1,788	19	216	192	1,380	15
Lancaster	1,355	—	1,355	14	431	12	79	1,805	26	—	173	1,692	21
Leicester	717	473	1,303	16	823	13	598	2,724	29	—	—	2,724	26
Leicester	1,037	856	1,893	17	1,919	48	156	3,962	65	—	327	3,635	69
Leicester	888	342	1,230	9	408	11	75	1,713	20	—	—	1,713	24
Lunenburg	—	3	466	2	630	12	40	1,136	14	—	137	999	6
Mendon	2,326	1,128	3,454	43	8,432	168	—	11,886	211	130	1,170	10,586	142
Milford	565	532	1,241	15	1,162	26	208	2,611	41	—	—	2,611	47
Millbury	—	—	183	3	49	1	—	232	4	—	—	232	3
New Braintree	525	132	733	8	205	7	70	1,008	15	8	2	998	15
Northborough	834	550	1,484	10	1,945	20	332	3,761	30	106	210	3,445	33
Northbridge	533	173	706	5	1,326	22	143	2,175	27	206	579	1,390	11
N. Brookfield	—	—	500	4	284	12	47	831	16	—	40	791	10
Oakham	839	471	1,474	15	426	15	230	2,130	30	30	220	1,880	30
Oxford	366	—	1,366	5	8	—	44	418	5	4	—	414	6
Paxton	689	362	1,051	6	1,137	12	—	2,188	18	—	20	2,168	19
Petersham	—	—	496	2	505	9	40	1,041	11	—	—	1,041	14
Phillipston	—	—	517	4	90	5	50	657	9	—	—	657	4
Princeton	312	—	1,127	9	228	6	70	1,425	15	—	—	1,425	11
Royalston	—	192	781	7	191	1	59	1,031	8	—	19	1,012	8
Rutland	556	356	579	6	445	21	159	1,183	27	7	141	1,035	26
Shrewsbury	223	—	1,160	9	1,252	16	60	2,472	25	—	137	2,335	44
Southborough	1,541	684	2,225	20	3,276	95	200	5,701	115	—	251	5,450	80
Spencer	1,354	770	2,124	16	2,410	23	272	4,806	39	135	396	4,275	39
Sterling	1,432	52	1,484	16	509	14	41	2,034	30	—	—	2,034	26
Sturbridge	591	—	794	8	919	9	51	1,764	17	17	167	1,580	10
Sutton	486	—	1,148	13	999	22	125	2,272	35	124	—	2,148	27
Templeton	2,009	114	2,573	17	656	9	131	3,360	26	10	42	3,308	24
Upton	882	236	1,118	11	334	6	47	1,499	17	—	26	1,473	14
Uxbridge	610	621	1,231	12	1,124	15	237	2,592	27	—	208	2,384	16
Warren	213	—	358	7	1,048	5	130	1,536	12	62	195	1,279	13

THE PAUPER ABSTRACT.

TABLE I. — COST OF SUPPORT AND RELIEF — Continued.

TOWNS BY COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.						PARTIAL SUPPORT.		Expenses of Admin- istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup- port or Relief July 1, 1881.
	Expense at Almshouses.	Expense at Lunatic Hos- pitals.	Expense else- where.	Total Expense.	Average No. Supported.	Expense.	Average No.	Relieved.		Expense.	Average No.	By the State.	By the Towns.		
WORCESTER.—Con.															
Webster . . .	\$1,308	\$1,468	\$127	\$2,903	23	\$2,800	23	23	—	\$5,703	46	—	\$26	\$5,677	48
Westborough . .	2,148	795	—	2,943	20	821	21	21	\$595	4,339	41	—	286	4,073	46
West Boylston . .	663	179	246	1,088	9	558	14	14	189	1,835	23	\$33	102	1,700	15
West Brookfield .	215	62	—	277	3	361	10	10	—	638	13	—	23	615	6
Westminster . . .	519	—	104	623	7	824	12	12	40	1,487	19	—	72	1,415	17
Winchendon . . .	410	334	277	1,021	10	1,199	20	20	100	2,320	30	—	10	2,310	21
Worcester . . .	8,582	6,728	—	15,310	93	9,488	412	412	2,641	27,439	505	956	3,693	22,790	281
Total . . .	\$57,281	\$25,337	\$9,281	\$91,899	758	\$75,130	1,676	1,676	\$11,388	\$178,417	2,434	\$2,812	\$12,676	\$162,929	1,915

NOTE. — In a few towns the number receiving support is given as it stood July 1, 1880, no return having been made from twelve towns, mostly small, for 1881.

PAUPERISM IN CITIES AND TOWNS.

SUMMARY BY COUNTIES.

COUNTIES.	COST AND AVERAGE OF FULL SUPPORT.					PARTIAL SUPPORT.		Expenses of Admin-istration.	AGGREGATES.		REIMBURSEMENTS.		Net Cost of Pauper Support and Relief.	No. Receiving Sup-port or Relief July 1, 1881.
	Expense at Almshouses.	Expense at Lunatic Hos-pitals.	Expense else-where.	Total Expense.	Average No. Supported.	Expense.	Average No. Relieved.		Expense.	Average No.	By the State.	By the Towns.		
Barnstable	\$11,706	\$4,007	\$2,251	\$17,964	163	\$24,336	708	\$1,860	\$44,160	871	\$87	\$2,843	\$41,230	755
Berkshire	5,781	5,230	13,531	24,542	196	15,122	367	2,593	42,257	563	448	1,110	40,699	579
Bristol	38,374	25,004	458	63,836	492	77,723	1,598	5,381	146,940	2,090	6,060	12,071	128,809	2,005
Dukes	-	1,611	3,122	4,733	32	2,290	30	172	7,195	62	9	67	7,119	57
Essex	59,446	37,600	7,753	104,799	895	87,527	2,447	10,507	202,833	3,342	2,964	16,327	183,542	2,915
Franklin	6,013	4,800	8,615	19,428	169	10,064	130	894	30,386	299	485	2,103	27,798	254
Hampden	14,378	12,491	12,944	39,813	317	26,203	579	6,584	72,600	896	2,994	2,482	67,124	863
Hampshire	5,020	5,392	8,492	18,904	164	16,494	324	1,325	36,723	488	1,552	2,461	32,710	452
Middlesex	66,047	39,800	10,735	116,582	892	87,328	2,007	11,645	215,555	2,899	3,885	24,009	187,661	2,517
Nantucket	2,805	784	-	3,589	40	2,816	68	450	6,855	108	-	674	6,181	82
Norfolk	23,631	18,557	7,387	49,575	359	56,393	1,122	3,513	109,481	1,481	576	7,854	101,051	1,398
Plymouth	21,721	10,810	5,705	38,236	285	38,441	830	4,522	81,199	1,115	457	9,031	71,691	1,107
Suffolk	98,465	148,375	1,574	248,414	1,594	90,380	3,642	18,286	357,080	5,236	8,767	13,194	336,119	3,520
Worcester	57,281	25,337	9,281	91,899	758	75,130	1,676	11,388	178,417	2,424	2,812	12,676	162,929	1,915
Total	\$410,668	\$339,798	\$91,848	\$842,314	6,344	\$610,247	15,528	\$79,120	\$1,531,681	21,872	\$31,096	\$106,922	\$1,393,663	18,419

THE PAUPER ABSTRACT.

PAUPERISM IN CITIES AND TOWNS.

TABLE I.—*Expense and Number of the Poor in the Massachusetts Cities and Towns for the Year ending March 31, 1881.*

PART II.—NUMBER SUPPORTED AND RELIEVED.

TOWNS BY COUNTIES.	Population in 1880.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED.				Daily Av'ge of Vagrancy.			
		AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		EASE- WHERE.	No. Supported July 1, 1881.	Whole No.	Males.		Females.	No. Relieved July 1, 1881.	
		Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.								
BARNSTABLE.															
Barnstable	4,250	23	20.2	17	15.3	5	3.9	1	17	17	140	61	79	72	—
Brewster	1,144	6	5.2	6	5.2	—	—	—	8	8	79	32	47	20	—
Chatham	2,252	10	8.6	7	7.	3	1.6	—	8	8	46	21	25	15	—
Dennis	3,290	16	13.3	11	9.2	2	1.3	3	10	10	128	50	78	69	—
Eastham	692	7	7.	—	—	1	1.	6	4	4	9	3	6	5	—
Falmouth	2,422	19	15.5	15	11.5	4	4.	—	15	15	32	27	5	4	—
Harwich	3,265	17	14.5	15	12.5	2	2.	—	15	15	179	85	94	67	1
Mashpee	347	2	2.	—	—	—	—	—	3	3	12	8	4	1	—
Orleans	1,294	10	5.7.	10	5.7	—	—	2	5	5	37	14	23	1	—
Provincetown	4,345	23	17.2	22	16.1	1	1.	1	22	22	205	97	108	136	—
Sandwich	3,544	34	25.6	30	20.7	6	4.5	1	23	23	162	66	96	73	1
Truro	1,019	6	4.4	—	—	—	—	6	3	3	13	8	5	12	—
Wellfleet	1,908	9	8.8	8	7.8	—	—	1	6	6	119	51	68	36	—
Yarmouth	2,173	16	14.6	14	13.1	2	1.5	—	17	17	132	52	80	88	—
Total	31,945	198	162.6	155	124.1	26	19.9	21	156	156	1,293	575	718	599	.2

NUMBER SUPPORTED AND RELIEVED.

	5,593	6	5.1	6	4.5	1	.6	-	6	32	16	16	11	-
BERKSHIRE.														
Adams . . .	5,593	6	5.1	-	-	1	-	3	6	32	16	16	11	-
Alford . . .	348	3	3.	-	-	1	-	12	3	8	2	2	-	-
Becket . . .	1,123	13	9.	1.	-	2	1.	4	8	9	38	1	20	-
Cheshire . . .	1,537	6	4.4	1.3	-	-	1.3	3	5	68	2	5	12	-
Clarksburg . . .	724	3	7.	-	-	-	-	8	3	39	18	7	2	-
Dalton . . .	2,052	8	7.	-	-	2	1.3	4	18	9	5	5	2	-
Egremont . . .	875	6	4.6	-	-	-	-	4	1	1	4	1	2	-
Florida . . .	459	-	.1	-	-	4	-	-	1	108	60	-	-	-
Great Barrington . . .	4,658	12	9.	1.4	-	-	-	8	10	15	8	8	-	-
Hancock . . .	642	2	2.	-	-	-	-	2	3	15	7	7	-	-
Hinsdale . . .	1,595	8	8.	-	-	-	-	8	6	37	21	8	-	-
Lauesborough . . .	1,278	1	1.	-	-	7	-	1	2	12	7	7	10	-
Lee . . .	3,939	24	21.5	-	7.1	7	6.5	9	25	54	25	25	36	-
Lenox . . .	2,043	10	5.	-	-	2	2	8	8	23	11	4	5	-
Monterey . . .	635	1	1.	-	-	-	-	1	2	7	2	2	1	-
Mt. Washington . . .	205	3	2.7	-	-	-	-	3	3	-	-	-	-	-
New Ashford . . .	203	1	.9	-	-	-	-	1	1	-	-	-	-	-
New Marlborough . . .	1,876	14	8.	1.3	-	3	1.3	11	8	38	22	11	-	-
North Adams . . .	10,132	40	20.	2.	14.7	2	2.	5	28	89	58	16	-	-
Otis . . .	785	3	3.	-	-	-	-	3	4	16	8	3	-	-
Peru . . .	403	1	1.	-	-	-	-	1	2	4	3	1	-	-
Pittsfield . . .	13,367	41	23.8	-	23.2	7	5.8	1	34	350	200	158	-	-
Richmond . . .	1,124	2	1.3	-	-	1	.4	1	2	21	9	7	-	-
Sandisfield . . .	1,107	10	7.2	-	-	1	1.	9	7	14	4	3	-	-
Savoy . . .	715	7	7.	-	6.	-	-	1	7	8	3	3	-	-
Sheffield . . .	2,204	19	8.9	-	-	1	.5	18	10	40	22	5	-	-
Stockbridge . . .	2,360	10	8.	-	-	2	2.	8	7	6	2	6	-	-
Tyringham . . .	542	5	2.9	-	-	-	-	5	2	6	1	1	-	-
Washington . . .	492	2	1.6	-	-	-	-	2	1	6	5	5	-	-
West Stockbridge . . .	1,934	4	3.3	-	-	1	.2	3	2	42	26	23	-	-
Williamstown . . .	3,395	7	4.4	-	7.	-	-	6	4	22	11	5	-	-
Windsor . . .	614	4	3.6	-	-	-	-	4	4	9	7	2	-	-
Total . . .	69,049	276	196.3	56.2	37	27.3	153	227	1,069	490	579	350	2.	-
BRISTOL.														
Acushnet . . .	1,105	9	7.3	6.9	1	.4	-	9	9	30	17	13	-	-
Attleborough . . .	11,111	22	14.9	5.1	10	9.7	1	25	124	56	68	27	1.1	-

THE PAUPER ABSTRACT.

TABLE I.—NUMBER SUPPORTED AND RELIEVED—Continued.

TOWNS BY COUNTIES.	Population in 1880.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED.				Daily Ave'ge of Vagrancy.	
		AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		ELSE- WHERE.	Whole No.	Males.	Females.		No. Relieved July 1, 1881.
		Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.						
BRISTOL.—Con.													
Berkley	927	7	6.4	4	4.	2	1.4	1	9	10	6	4	5
Dartmouth	3,430	32	23.	26	17.	6	6.	—	17	84	34	50	29
Dighton	1,791	8	5.1	5	3.1	3	2.8	—	5	2	—	2	2
Easton	3,502	36	27.1	31	21.3	6	5.8	—	26	157	79	78	69
Fairhaven	2,875	16	12.7	13	10.6	3	2.1	—	11	56	21	35	16
Fall River	49,006	269	145.1	219	104.1	50	40.9	1	141	2,646	1,243	1,403	330
Freetown	1,329	6	4.3	6	4.3	1	1.	—	4	22	10	12	29
Mansfield	2,765	13	9.6	10	7.5	2	1.7	1	9	88	42	46	29
New Bedford	26,875	152	95.	124	71.5	32	23.5	—	97	1,168	477	691	631
Norton	1,732	9	7.3	7	6.9	2	1.4	—	8	26	13	13	2
Raynham	1,681	1	1.	—	—	1	1.	—	2	24	18	6	17
Reloboth	1,891	19	14.3	18	13.3	1	1.	—	13	36	18	23	23
Seekonk	1,228	2	2.	1	1.	1	1.	—	1	3	1	2	3
Somerset	2,006	13	12.2	13	12.2	—	—	—	10	26	11	15	5
Swansey	1,356	6	5.2	6	5.2	—	—	—	8	25	11	14	3
Taunton	21,213	149	89.2	92	50.1	55	38.1	2	85	641	270	371	247
Westport	2,898	14	10.5	13	9.5	1	1.	—	14	101	41	60	31
Total	139,121	783	492.2	607	352.8	177	136.1	6	494	5,245	2,355	2,890	1,511
Dukes.													
Chilmark	494	5	5.	—	—	1	1.	4	5	1	—	1	—
Cottage City	679	—	—	—	—	—	—	—	—	18	8	10	7
Edgartown	1,301	17	14.1	—	—	4	4.	13	15	34	19	15	12
Gay Head	161	—	—	—	—	—	—	—	—	2	2	—	—

UMBER SUPPORTED AND RELIEVED.

	154	14	12.5	-	-	4	3.4	10	10	20	9	11	8	-
Gosnold .	154	36	31.6	-	-	9	8.4	27	30	75	38	37	27	-
Tisbury .	1,516													-
Total	4,305													-
Essex.														
Amesbury .	3,355	19	14.4	16	11.4	-	-	3	12	31	17	14	7	.1
Andover .	3,171	55	40.8	48	36.8	8	4.	-	40	53	16	37	41	1.
Beverly .	8,445	50	37.2	43	30.9	7	6.3	-	36	156	75	81	59	.8
Boxford .	824	7	6.1	7	6.1	-	-	-	6	17	7	10	9	.1
Bradford .	2,643	10	9.3	-	-	5	5.	5	9	14	8	6	5	-
Danvers .	6,636	24	22.1	9	4.5	7	5.1	13	21	135	58	77	98	.4
Essex .	1,670	11	8.8	9	6.3	2	1.9	1	8	29	8	21	33	.2
Georgetown .	2,231	12	9.8	10	7.8	2	2.	-	8	48	22	26	12	.1
Gloucester .	19,329	89	57.9	57	33.6	31	24.3	1	47	809	400	409	247	1.6
Groveland .	2,227	7	3.7	4	2.5	1	1.	2	4	51	26	25	12	.2
Hamilton .	935	1	1.	-	-	1	1.	-	1	7	3	4	4	.1
Haverhill .	18,475	70	40.8	52	24.2	12	10.9	7	36	405	160	245	67	.8
Ipswich .	3,699	19	15.	18	14.7	1	.3	-	9	39	16	23	12	.7
Lawrence .	39,178	130	72.1	76	40.8	36	21.6	18	78	1,284	577	707	350	1.4
Lynn .	38,284	214	106.9	158	61.3	56	45.6	-	94	1,768	825	943	309	2.8
Lynnfield .	686	8	6.8	1	.5	1	1.	6	5	8	6	2	3	-
Manchester .	1,640	16	11.2	12	8.1	4	3.1	-	12	49	18	31	16	.1
Marblehead .	7,467	60	50.	51	41.5	13	6.5	2	46	254	93	161	114	.3
Merimac .	2,237	5	4.9	2	2.	-	-	3	4	25	16	9	2	.4
Methuen .	4,392	20	12.9	7	4.6	8	6.4	5	13	164	80	84	7	.2
Middleton .	1,000	8	4.3	2	1.2	-	-	6	3	5	2	3	1	-
Nahant .	808	-	-	-	-	-	-	-	-	10	1	9	8	-
Newbury .	1,566	12	11.1	-	-	4	3.8	-	-	16	9	7	10	-
Newburyport .	13,537	116	63.9	102	52.5	15	11.4	8	13	428	152	276	282	-
North Andover .	3,217	12	7.2	12	8.2	-	-	-	60	69	24	45	26	.1
Peabody .	9,028	68	46.3	57	38.9	12	7.4	-	8	375	163	212	146	.5
Rockport .	3,912	30	22.2	21	14.	9	8.2	-	22	80	26	54	39	.2
Rowley .	1,201	5	4.9	1	-	1	1.	4	3	13	8	5	4	.4
Salem .	27,598	225	156.8	197	133.1	24	19.7	4	137	882	335	547	111	1.3
Salisbury .	4,079	12	7.9	9	5.5	2	1.4	1	7	26	9	17	3	.2
Saugus .	2,626	22	17.7	13	10.	5	4.2	4	17	89	43	46	8	.6
Swampscott .	2,501	6	5.3	-	-	6	5.3	-	7	17	7	10	6	-

THE PAUPER ABSTRACT.

TABLE I.—NUMBER SUPPORTED AND RELIEVED—Continued.

TOWNS BY COUNTIES.	Population in 1880.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED.				Daily Av'ge of Vagrancy.		
		AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		ELSE- WHERE.	No. Supported July 1, 1881.	Whole No.	Males.		Females.	No. Relieved July 1, 1881.
		Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.							
Essex—Con.														
Topshfield . . .	1,165	11	10.1	9	8.1	2	2.	-	10	10	9	1	5	-
Wenham . . .	889	1	.3	-	-	1	.3	-	-	18	8	10	18	.2
West Newbury . .	1,989	10	4.	7	2.1	2	1.7	1	15	29	14	15	2	-
Total . . .	244,640	1,365	894.8	1,005	611.2	278	212.4	94	839	7,413	3,241	4,172	2,076	14.8
FRANKLIN.														
Ashfield . . .	1,062	7	5.6	4	3.4	2	1.3	1	5	5	3	2	1	-
Barnardston . . .	934	8	6.8	-	-	1	.5	8	7	30	15	15	16	-
Buckland . . .	1,739	9	9.	6	6.	1	1.	2	9	16	6	10	9	.1
Charlemont . . .	932	5	5.	4	4.	1	1.	-	4	-	-	-	-	-
Colrain . . .	1,777	7	4.9	-	-	2	1.1	5	6	5	3	2	-	-
Conway . . .	1,760	9	7.7	-	-	1	1.	8	11	20	16	4	1	-
Deerfield . . .	3,543	12	11.5	-	-	3	3.	9	6	48	26	22	20	.1
Erving . . .	872	-	-	-	-	-	-	-	2	17	8	9	2	.1
Gill . . .	733	6	5.9	-	-	2	1.9	4	5	4	3	1	1	-
Greenfield . . .	3,903	13	8.4	11	6.4	2	2.	-	7	72	30	42	12	.1
Hawley . . .	592	3	2.8	3	2.8	-	-	-	2	4	2	2	-	-
Heath . . .	560	7	6.2	7	6.2	-	-	-	7	9	-	-	2	-
Leverett . . .	742	6	4.4	5	2.5	2	1.9	-	4	-	5	4	-	-
Leyden . . .	507	9	8.3	-	-	1	1.	8	6	2	2	-	2	-
Monroe . . .	166	1	.2	-	-	1	-	1	-	9	-	-	-	-
Montague . . .	4,876	17	14.	12	10.5	1	1.	1	10	61	38	23	8	.7
New Salem . . .	869	3	2.2	3	2.2	-	-	4	1	13	8	5	1	-
Northfield . . .	1,603	9	8.4	-	-	2	1.9	7	6	32	11	21	5	-

NUMBER SUPPORTED AND RELIEVED.

Orange . . .	3,171	10	9.	7	7.	31	26.7	1	9	29	15	14	6	.2
Rowe . . .	502	5	1.4	-	-	1	1.	4	2	8	5	3	7	-
Shelburne . . .	1,621	7	6.	-	-	4	3.	3	6	5	4	1	3	.1
Shutesbury . . .	529	10	8.4	8	7.1	-	-	2	9	17	8	9	3	-
Sunderland . . .	755	12	11.3	-	-	1	1.	11	8	5	4	1	2	.1
Warwick . . .	713	8	6.2	7	5.2	-	-	1	3	12	6	6	1	-
Wendell . . .	465	4	3.7	4	3.7	-	-	-	3	8	5	3	8	-
Whately . . .	1,074	13	12.2	-	-	2	2.	11	9	24	12	12	-	.1
Total	36,000	200	169.5	81	67.	31	26.7	90	147	446	235	211	107	1.6
HAMPDEN.														
Agawam . . .	2,216	18	8.2	7	2.6	3	3.	8	7	38	14	24	19	-
Blandford . . .	979	8	5.6	-	-	2	1.2	7	5	10	8	2	9	-
Brimfield . . .	1,203	15	14.3	14	13.3	1	1.	-	16	9	4	5	3	.1
Chester . . .	1,473	10	6.9	-	-	1	.7	-	7	16	10	6	9	.2
Chicopee . . .	11,325	62	27.9	55	22.	7	5.9	-	29	279	49	230	146	.4
Granville . . .	1,205	10	8.2	-	-	1	1.	-	9	15	6	9	7	-
Hampden . . .	958	4	3.5	-	-	1	1.	3	4	33	10	23	24	-
Holland . . .	302	4	4.	-	-	-	-	4	4	2	1	1	-	-
Holyoke . . .	21,851	43	34.6	-	-	16	12.8	27	26	1,724	557	1,167	182	.4
Longmeadow . . .	1,401	7	6.5	-	-	1	1.	6	6	21	9	12	12	-
Ludlow . . .	1,526	15	8.9	-	-	1	1.	14	6	20	11	9	16	-
Monson . . .	3,758	26	18.8	24	16.8	2	2.	-	19	25	10	15	5	-
Montgomery . . .	303	3	1.2	-	-	-	-	3	2	8	5	3	5	-
Palmer . . .	5,504	24	17.	15	11.3	5	2.5	8	25	47	17	30	7	.5
Russell . . .	823	7	5.2	-	-	-	-	7	4	4	2	2	4	.2
Southwick . . .	1,104	15	8.3	-	-	1	1.	14	5	4	2	2	-	-
Springfield . . .	33,340	221	91.2	161	52.1	39	24.4	40	97	605	269	336	59	1.5
Tolland . . .	452	2	2.	-	-	-	-	2	2	-	-	-	-	-
Wales . . .	1,030	7	6.6	-	-	-	-	7	6	9	3	6	-	-
Westfield . . .	7,587	30	27.	22	19.1	5	5.	3	25	263	149	114	29	.3
West Springfield . . .	4,149	8	7.2	-	-	2	1.6	6	5	86	45	41	13	-
Willbraham . . .	1,628	6	3.5	-	-	3	2.	3	3	15	10	5	12	.3
Total	104,117	545	316.6	298	137.2	91	67.1	180	312	3,233	1,191	2,042	551	3.9

THE PAUPER ABSTRACT.

TABLE I. — NUMBER SUPPORTED AND RELIEVED — Continued.

TOWNS BY COUNTIES.	Population in 1880.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED.				Daily Av'ge of Vagrancy.		
		AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		EASE- WHERE.	Whole No.	Males.	Females.		No. Relieved July 1, 1881.	
		Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.							
HAMPSHIRE.														
Amberst. . .	4,299	18	15.1	10	9.	4	2.7	5	16	15	20	18	.2	
Belchertown . .	2,346	18	14.5	18	14.5	-	-	-	11	42	30	34	.2	
Chesterfield . .	769	10	8.3	-	-	-	-	10	10	3	3	6	-	
Cummington . .	881	4	4.	-	-	1	1.	3	4	9	3	1	-	
Easthampton . .	4,206	8	7.1	-	-	3	1.6	6	9	61	56	52	.1	
Enfield . . .	1,043	6	4.4	-	-	-	-	6	1	3	6	2	-	
Goshen . . .	327	1	.3	-	-	-	-	1	-	3	-	-	-	
Granby . . .	753	5	4.6	-	-	3	2.6	2	4	6	9	5	-	
Greenwich . . .	634	5	4.5	4	3.5	-	-	1	5	-	5	3	.1	
Hadley . . .	1,938	10	9.1	8	7.1	2	2.	-	8	10	12	5	-	
Hatfield . . .	1,495	5	5.	-	-	3	3.	2	5	12	7	11	.1	
Huntington . . .	1,236	4	2.2	-	-	-	-	4	3	4	4	-	.2	
Middlefield . .	648	4	3.1	-	-	1	1.	3	3	8	7	18	-	
Northampton . .	12,172	48	32.6	13	8.9	8	7.1	27	32	96	82	129	.2	
Pelham . . .	614	6	3.1	-	-	-	-	6	3	5	1	-	-	
Plainfield . . .	457	3	2.	-	-	1	1.	2	2	6	7	-	-	
Prescott . . .	460	5	3.3	5	3.3	-	-	-	2	2	4	-	-	
Southampton . .	1,046	3	3.	-	-	1	1.	2	3	2	4	2	-	
Souh Hadley . .	3,538	14	9.8	-	-	3	2.1	11	8	54	32	20	-	
Ware . . .	4,817	18	13.4	12	9.6	5	2.8	1	14	13	26	21	-	
Westhampton . .	564	2	1.6	-	-	-	-	2	1	2	-	2	-	
Williamsburg . .	2,234	12	9.4	-	-	1	1.	11	8	7	3	10	.1	
Worthington . .	758	4	4.	-	-	3	3.	1	3	2	3	4	-	
Total . . .	47,235	213	164.4	70	55.9	39	31.9	106	158	560	324	294	1.2	

NUMBER SUPPORTED AND RELIEVED.

MIDDLESEX.	1,797	12	9.1	9	6.9	3	2.1	1	9	19	9	10	9	10	10	2.6
Acton . . .	4,100	14	11.1	8	7.1	6	4.	-	9	64	9	40	24	16	10	-
Arlington . . .	914	4	4.	4	4.	-	-	-	5	6	3	3	3	2	4	.3
Ashby . . .	2,394	14	10.1	11	9.4	-	-	3	11	63	34	29	34	4	4	.1
Ayer . . .	1,882	11	8.2	-	-	1	1.	10	3	41	22	19	6	7	7	.3
Bedford . . .	931	17	15.8	17	15.8	2	-	-	14	8	9	2	9	13	27	.2
Belmont . . .	1,615	4	3.	-	-	-	1.1	2	3	22	10	12	10	3	3	.3
Billerica . . .	2,000	15	13.6	15	13.6	-	-	1	14	22	-	-	-	-	-	-
Boxborough . . .	319	1	1.	-	-	-	-	-	2	-	13	10	13	12	12	-
Burlington . . .	711	6	5.3	6	5.3	-	-	-	5	23	435	644	435	38	38	2.7
Cambridge . . .	52,740	200	117.3	163	88.6	43	28.2	1	118	1,079	4	5	4	10	10	-
Carlisle . . .	478	7	6.5	7	6.5	-	-	-	6	8	4	5	4	10	10	-
Chelmsford . . .	2,553	12	9.9	8	7.	4	2.9	-	10	14	9	28	19	1	1	.7
Concord . . .	3,922	7	5.5	4	3.4	3	2.1	-	5	47	8	11	8	3	3	.1
Dracut . . .	1,605	14	11.2	13	10.6	1	.6	-	9	19	1	1	1	2	2	.1
Dunstable . . .	453	5	4.4	-	-	2	1.4	3	5	1	-	74	-	12	12	.1
Everett . . .	4,159	18	14.4	-	-	7	4.4	11	16	122	48	9	33	13	13	.1
Frammingham . . .	6,235	13	9.4	12	9.2	1	.2	-	8	42	33	9	33	14	14	.2
Groton . . .	1,862	16	10.2	16	10.2	-	-	-	12	27	13	14	13	12	12	-
Holliston . . .	3,099	17	13.1	12	8.1	5	5.	-	12	85	42	43	62	49	49	-
Hopkinton . . .	4,602	28	22.2	21	16.4	3	3.8	2	19	149	43	89	42	23	23	.1
Hudson . . .	3,739	19	8.8	18	8.	1	.8	-	10	43	18	25	18	23	23	.1
Lexington . . .	2,460	16	13.8	14	10.9	2	1.	2	11	46	19	27	19	2	2	.1
Lincoln . . .	882	4	3.9	-	-	2	2.	2	3	3	1	2	1	1	1	.1
Littleton . . .	904	4	3.5	3	2.5	1	1.	-	3	24	14	10	14	10	10	.3
Lowell . . .	59,485	349	173.8	305	137.4	39	31.1	6	173	2,755	1,076	1,679	1,076	139	139	2.5
Malden . . .	12,017	47	31.5	40	25.9	7	4.8	1	21	407	172	235	172	126	126	.2
Marlborough . . .	10,126	37	23.3	32	18.6	6	3.8	-	19	517	306	211	306	70	70	.2
Maynard . . .	2,291	7	7.	-	-	3	3.	4	7	9	7	2	7	2	2	.5
Medford . . .	7,573	24	20.9	13	11.	11	9.9	-	20	119	46	73	46	55	55	.3
Melrose . . .	4,560	18	14.	1	1.	7	5.4	10	15	88	35	53	35	28	28	.2
Natick . . .	8,480	18	9.2	10	3.2	7	5.9	1	12	202	117	85	117	130	130	1.2
Newton . . .	16,995	43	32.6	30	22.1	14	10.1	1	34	343	153	190	153	160	160	.3
North Reading . . .	900	9	6.7	9	6.7	-	-	-	7	46	23	23	23	21	21	.5
Pepperell . . .	2,348	19	15.4	17	14.6	1	.8	1	16	16	2	14	2	5	5	-
Reading . . .	3,181	16	12.1	10	8.3	6	3.8	-	11	46	12	34	12	25	25	.6
Sherborn . . .	1,401	8	7.4	6	5.3	1	1.	1	7	17	10	7	10	8	8	.1

THE PAUPER ABSTRACT.

TABLE I.—NUMBER SUPPORTED AND RELIEVED—Continued.

TOWNS BY COUNTIES.	Population in 1880.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED.				Daily Av'ge of Vagrancy.			
		AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		ELSE- WHERE.	No. Supported July 1, 1881.	Whole No.	Males.		Females.	No. Relieved July 1, 1881.	
		Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.								
MIDDLESEX — Con.															
Shirley . . .	1,365	5	5.	—	—	—	—	5	5	42	18	24	10	.2	
Somerville . . .	24,985	29	23.2	15	—	15	14.4	14	22	843	368	475	329	17	
Stoneham . . .	4,891	22	9.4	17	5.1	5	4.3	—	7	152	77	75	40	.3	
Stow . . .	1,045	9	5.4	7	4.4	2	.9	—	7	21	8	13	7	.1	
Sudbury . . .	1,178	14	8.1	12	6.7	2	1.4	—	8	21	9	12	17	—	
Tewksbury . . .	2,171	7	6.	6	5.	1	1.	—	7	10	4	6	1	.3	
Townsend . . .	1,967	9	5.6	9	5.6	—	—	—	4	10	6	4	—	—	
Tyngsborough . . .	631	10	8.5	10	8.5	—	—	—	8	6	—	6	2	.1	
Wakefield . . .	5,548	23	14.7	10	4.	13	10.6	—	6	96	46	50	10	1.	
Waltham . . .	11,711	42	31.2	21	12.8	17	13.4	6	29	124	42	82	33	1.	
Watertown . . .	5,426	27	16.2	18	11.3	9	5.2	—	14	144	57	87	27	.4	
Wayland . . .	1,962	9	5.9	8	5.6	1	.3	—	5	14	7	7	5	.1	
Westford . . .	2,147	15	11.4	9	6.1	3	3.	3	11	25	10	15	4	.2	
Weston . . .	1,448	7	5.1	6	4.1	1	1.	—	6	4	2	2	3	.6	
Wilmington . . .	933	8	7.	8	7.	—	—	—	7	6	3	3	—	.1	
Winchester . . .	3,802	7	6.5	1	.5	1	1.	5	7	74	35	39	44	.1	
Woburn . . .	10,938	44	33.3	36	25.6	8	7.7	—	46	117	71	46	55	.8	
Total . . .	317,951	1,360	891.7	1,012	609.9	269	206.9	96	863	8,251	3,577	4,674	1,630	24.8	
NANTUCKET.															
Nantucket . . .	3,726	45	40.4	42	37.4	3	3.	—	33	192	63	129	49	—	
NORFOLK.															
Bellingham . . .	1,223	15	9.3	11	7.2	3	2.	1	12	23	11	12	2	.4	

NUMBER SUPPORTED AND RELIEVED.

Braintree	3,855	24	18.	12.5	7	5.6	-	15	138	77	61	31	3
Brookline	8,053	37	34.1	-	4	3.7	33	34	163	64	99	92	1.
Canton	4,523	22	17.2	12.	5	4.2	1	16	75	28	47	28	1.
Cohasset.	2,182	16	14.6	11.1	4	3.5	-	16	63	23	40	36	1.
Dedham.	6,224	30	26.9	17.4	10	8.5	1	31	198	83	115	89	.8
Dover	653	1	1.	-	-	-	1	4	4	3	1	5	.6
Foxborough	2,951	11	7.5	4.	4	3.2	1	6	14	4	10	3	.2
Franklin	4,051	15	13.1	7.	6	5.1	1	10	48	26	22	29	-
Holbrook	2,132	6	6.	1.	2	2.	3	5	56	25	31	23	.1
Hyde Park	7,090	16	15.1	-	6	5.1	10	15	147	70	77	2	.3
Medfield.	1,365	9	6.	3.4	3	2.6	-	5	4	4	-	-	-
Medway.	3,955	23	17.1	13.1	4	4.	-	18	196	89	107	35	.2
Milton	3,206	21	16.3	9.1	4	2.2	7	14	22	9	13	11	.9
Needham	5,254	26	16.4	9.5	5	4.9	2	17	34	10	24	2	.2
Norfolk.	930	2	2.	-	-	-	2	2	42	22	20	21	.6
Norwood	2,345	2	1.5	-	-	-	2	1	35	12	23	28	2.7
Quincy	10,529	52	27.6	18.4	10	7.3	5	33	301	111	190	200	1.3
Randolph	4,027	36	27.8	18.9	5	3.1	6	29	182	85	97	101	.5
Sharon	1,492	8	7.5	6.5	1	1.	-	8	17	10	7	13	.4
Stoughton	4,875	21	17.2	13.7	4	3.1	1	17	110	50	60	53	2.7
Walpole.	2,404	12	10.	7.	3	3.	-	11	63	29	34	-	.7
Weymouth	10,571	39	34.5	20.4	13	13.	2	34	236	113	123	202	.2
Wrentham	2,482	19	12.3	9.3	4	3.	-	15	53	22	31	25	.1
Total	96,462	463	359.	201.5	107	90.1	79	365	2,224	980	1,244	1,026	15.3
PLYMOUTH.													
Abington	3,607	19	16.5	5.1	4	4.	9	14	117	46	71	17	.1
Bridgewater	3,620	16	8.2	6.1	1	.1	2	6	13	4	9	24	.2
Brockton	13,608	44	27.8	18.9	11	8.5	1	25	301	133	168	120	-
Carver	1,039	10	7.2	5.2	5	.6	2	7	30	16	14	26	-
Duxbury	2,196	17	14.8	10	5	3.5	2	12	68	36	36	23	.1
East Bridgewater.	2,710	15	11.3	9.3	2	2.	-	11	34	15	19	4	-
Halifax	542	6	6.	-	1	1.	5	5	4	2	2	1	.1
Hanover.	1,897	9	5.8	3.7	2	2.	-	8	56	34	22	29	.1
Hanson.	1,309	7	4.4	4.4	-	-	-	5	35	13	22	31	.3
Hingham	4,485	32	21.4	17.7	5	3.7	-	18	109	50	59	33	.3
Hull	383	1	1.	-	-	-	1	1	11	4	7	6	-

THE PAUPER ABSTRACT.

TABLE I.—NUMBER SUPPORTED AND RELIEVED—Concluded.

TOWNS BY COUNTIES.	Population in 1880.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED.				Daily Ave of Vagrancy.		
		AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		ELSE- WHERE.	Whole No.	Males.	Females.		No. Relieved July 1, 1881.	
		Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.							
WORCESTER—Con.														
Princeton . . .	1,100	5	4.3	3	2.3	—	—	2	1	20	10	10	3	.1
Royalston . . .	1,192	10	9.3	—	—	—	—	10	5	8	5	3	6	—
Rutland . . .	1,060	13	7.2	12	6.1	1	1.	1	6	11	6	5	2	—
Shrewsbury . . .	1,500	7	6.3	5	4.3	2	2.	—	6	38	14	24	20	.1
Southborough . . .	2,142	11	9.4	—	—	—	—	11	7	73	35	38	37	.3
Southbridge . . .	6,465	29	19.9	25	16.8	4	3.	—	23	216	92	124	57	.1
Spencer . . .	7,466	20	15.8	16	12.1	6	3.7	—	18	263	142	121	21	.4
Sterling . . .	1,414	18	15.6	18	15.6	—	—	—	15	23	8	15	11	—
Sturbridge . . .	2,062	15	8.2	13	6.2	—	—	2	5	50	20	30	5	.2
Sutton . . .	3,105	17	12.9	12	9.3	3	2.6	2	12	112	47	65	15	—
Templeton . . .	2,789	27	16.8	21	11.9	2	1.	7	17	19	12	7	7	—
Upton . . .	2,023	17	10.9	16	9.7	2	3.7	—	14	38	22	16	—	.1
Uxbridge . . .	3,111	14	11.8	10	8.1	4	—	—	11	61	27	34	5	.3
Warren . . .	3,889	11	7.	9	6.	—	—	2	12	47	20	27	1	.7
Webster . . .	5,696	27	23.3	17	13.7	9	8.6	1	17	157	75	82	31	.1
Westborough . . .	5,214	25	20.	21	16.	4	4.	—	23	123	56	67	23	.2
West Boylston . . .	2,994	11	8.8	9	7.2	1	7.	1	7	94	46	48	8	.3
West Brookfield . . .	1,917	4	3.5	4	2.9	1	.6	—	3	27	13	14	3	.2
Westminster . . .	1,652	9	6.9	8	5.9	—	—	1	5	22	21	1	12	.1
Winchendon . . .	3,722	12	9.8	8	7.1	2	2	2	6	58	22	36	15	.1
Worcester . . .	58,295	158	92.6	111	59.2	47	33.4	—	97	2,080	1,019	1,061	184	4.5
Total . . .	226,885	1,105	757.6	847	559.4	175	131.2	98	764	6,091	2,922	3,169	1,155	15.1

NUMBER SUPPORTED AND RELIEVED.

SUMMARY BY COUNTIES.

COUNTIES.	PERSONS FULLY SUPPORTED DURING THE YEAR.						PERSONS PARTIALLY SUPPORTED				Daily Ave of Vagrancy.			
	AGGREGATES.		IN ALMSHOUSES.		IN LUN. HOSPITALS.		ELSE-WHERE.	Whole No.	Males.	Females.		No. Relieved July 1, 1881.		
	Whole No.	Average No.	Whole No.	Average No.	Whole No.	Average No.								
Barnstable	31,945	198	162.6	155	124.1	26	19.9	21	156	1,293	575	718	599	.2
Berkshire	69,049	276	196.3	87	56.2	37	27.3	153	227	1,069	490	579	352	2.5
Bristol	139,121	783	492.2	607	352.8	177	136.1	6	494	5,245	2,355	2,890	1,511	6.5
Dukes	4,305	36	31.6	-	-	9	8.4	27	30	75	38	37	27	-
Essex	244,640	1,365	894.8	1,005	611.2	278	212.4	94	839	7,413	3,241	4,172	2,076	14.8
Franklin	36,000	200	169.5	81	67.	31	26.7	90	147	446	235	211	107	1.6
Hampden	104,117	545	316.6	298	137.2	91	67.1	180	312	3,233	1,191	2,042	551	3.9
Hampshire	47,235	213	164.4	70	55.9	39	31.9	106	158	684	360	324	294	1.2
Middlesex	317,951	1,360	891.7	1,012	609.9	269	206.9	96	863	8,251	3,577	4,674	1,654	24.8
Nantucket	3,726	45	40.4	42	37.4	3	3.	-	33	192	63	129	49	-
Norfolk	96,462	463	359.	279	201.5	107	90.1	79	365	2,224	980	1,244	1,033	15.3
Plymouth	74,024	395	285.3	272	186.8	75	57.8	49	272	1,663	785	878	835	2.9
Suffolk	387,626	2,628	1,593.7	1,422	661.6	915	706.2	314	1,589	14,727	5,693	9,034	1,921	76.9
Worcester	226,885	1,105	757.6	847	559.4	175	131.2	98	764	6,091	2,922	3,169	1,151	15.1
Total	1,786,086	9,555*	6,343.6	6,128	3,654.	2,230	1,723.	1,307	6,259	52,606	22,505	30,101	12,160	165.2

* Excluding 57 twice reported by different towns.

THE PAUPER ABSTRACT.

CENSUS OF PAUPERISM (1880-81).

TABLE II.—Showing by Counties the Number of Persons reported by the Overseers of the Poor as Supported or Relieved at Different Dates.

COUNTIES.	JAN. 1, 1880.					JULY 1, 1880.					JAN. 1, 1881.					JULY 1, 1881.*				
	Full.	Partial.	Vagrants.	Total.	Insane.	Full.	Partial.	Vagrants.	Total.	Insane.	Full.	Partial.	Vagrants.	Total.	Insane.	Full.	Partial.	Vagrants.	Total.	Insane.
Barnstable.	169	743	6	918	44	172	683	—	855	46	158	834	—	992	39	156	599	—	755	46
Berkshire.	224	459	26	709	35	201	285	—	486	50	225	417	6	648	44	227	350	2	579	49
Bristol.	551	2,894	28	3,473	149	486	1,529	3	2,018	161	533	1,710	6	2,249	178	494	1,509	2	2,005	179
Dukes.	49	25	—	74	11	27	31	—	58	10	35	36	—	71	13	30	27	—	57	12
Essex.	878	2,979	106	3,963	303	820	2,300	4	3,124	295	910	2,936	26	3,872	305	839	2,066	10	2,915	313
Franklin.	118	154	16	288	23	149	127	—	276	32	157	170	7	334	36	147	106	1	254	36
Hampden.	339	839	7	1,185	86	307	502	—	809	96	299	706	4	1,009	88	312	551	—	863	100
Hampshire.	188	300	5	493	46	181	306	1	488	53	170	328	1	499	49	158	294	—	452	44
Middlesex.	933	2,880	139	3,952	289	825	1,657	5	2,487	301	947	2,514	29	3,490	319	863	1,630	24	2,517	315
Nantucket.	47	76	—	123	10	41	46	—	87	9	37	108	—	145	8	33	49	—	82	8
Norfolk.	358	1,174	120	1,652	108	354	1,000	—	1,354	110	367	1,229	4	1,600	104	365	1,026	7	1,398	115
Plymouth.	306	879	34	1,219	82	268	682	—	950	617	273	991	—	1,264	74	272	835	—	1,107	87
Suffolk.	1,496	4,739	72	6,307	592	1,427	1,922	170	3,519	82	1,545	5,096	140	6,781	639	1,599	1,826	95	3,520	704
Worcester.	780	2,200	73	3,053	195	760	1,333	4	2,097	203	766	2,428	12	3,206	198	764	1,146	5	1,915	218
Total.	6,436	20,341	632	27,409	1,973	6,018	12,403	187	18,608	2,065	6,422	19,503	235	26,160	2,094	6,259	12,014	146	18,419	2,226
Add State Paupers.	1,858	—	—	1,858	899	1,710	—	—	1,710	885	1,929	—	—	1,929	838	1,669	—	—	1,669	829
Aggregate of State and Town Paupers,	8,294	20,341	632	29,267	2,872	7,728	12,403	187	19,318	2,950	8,351	19,503	235	28,089	2,932	7,928	12,014	146	20,088	3,055

* See note on page 14.

TABLE III.—*Statistics of Children and Insane Persons among the City and Town Poor March 31 and July 1, 1881.*

THE PAUPER ABSTRACT.

TABLE III. — Continued.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.							Insane of all Classes Supported July 1, 1881.	Insane visited in Alms- houses March to De- cember, 1881.
	In Alms- houses	Elsewhere.	Total.	For the Year end- ing Mar. 31, 1881.		Remain'g Mar. 31, 1881.						
				Whole No.	Ave'ge No	In Hospi- tals.	In Alms- houses.	Elsewhere.	Total.			
BERKSHIRE—Con.												
Sheffield. . .	-	5	5	2	.95	1	-	-	1	1	-	-
Stockbridge . . .	-	1	1	2	2.00	2	-	-	2	2	-	-
Tyringham . . .	-	-	-	-	-	-	-	-	-	-	-	-
Washington . . .	-	-	-	-	-	-	-	-	-	-	-	-
West Stockbridge,	-	-	-	1	.25	-	-	-	-	-	-	-
Williamstown . . .	-	-	-	2	2.00	-	-	2	2	1	1	1
Windsor . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . .	12	13	25	55	43.17	30	7	6	43	49	9	
BRISTOL.												
Acushnet . . .	1	1	2	2	.96	1	-	-	1	1	1	1
Attleborough . . .	-	-	-	10	9.66	8	-	-	8	12	-	-
Berkley . . .	-	-	-	2	1.38	2	-	-	2	2	1	1
Dartmouth . . .	-	-	-	7	7.00	6	1	-	7	7	2	2
Dighton . . .	-	-	-	4	3.05	2	1	-	3	4	1	1
Easton . . .	7	-	7	8	7.68	4	2	-	6	6	3	3
Fairhaven . . .	1	-	1	5	4.14	2	2	-	4	4	3	3
Fall River . . .	31	-	31	59	44.77	35	7	-	42	45	9	9
Freetown . . .	-	-	-	2	1.13	-	1	-	1	-	3	3
Mansfield . . .	2	-	2	2	1.71	2	-	-	2	2	-	-
New Bedford . . .	13	-	13	43	35.40	24	13	-	37	36	10	10
Norton . . .	-	-	-	3	1.40	-	1	-	1	1	2	2
Raynham . . .	-	-	-	1	1.00	1	-	-	1	2	-	-
Rehoboth . . .	3	-	3	2	1.25	1	-	-	1	1	3	3
Seekonk . . .	-	-	-	1	1.00	1	-	-	1	1	1	1
Somerset . . .	1	-	1	5	5.00	-	5	-	5	5	5	5
Swansey . . .	2	-	2	2	2.00	-	2	-	2	6	2	2
Taunton . . .	14	-	14	58	40.45	41	2	-	43	41	2	2
Westport . . .	2	-	2	2	2.00	1	1	-	2	3	5	5
Total . . .	77	1	78	218	170.98	131	38	-	169	179	53	
DUKES.												
Chilmark . . .	-	-	-	2	2.00	1	1	-	2	2	-	-
Cottage City . . .	-	-	-	-	-	-	-	-	-	-	-	-
Edgartown . . .	-	-	-	4	4.00	4	-	-	4	4	-	-
Gay Head . . .	-	-	-	-	-	-	-	-	-	-	-	-
Gosnold . . .	-	-	-	-	-	-	-	-	-	-	-	-
Tisbury . . .	-	-	-	9	7.71	4	-	4	8	6	-	-
Total . . .	-	-	-	15	13.71	9	1	4	14	12	-	-
ESSEX.												
Amesbury . . .	3	-	3	4	4.00	-	3	1	4	3	3	3
Andover . . .	9	-	9	12	7.52	3	5	-	8	4	5	5
Beverly . . .	2	-	2	17	16.25	6	10	-	16	19	8	8
Boxford . . .	1	-	1	2	2.00	-	2	-	2	2	2	2
Bradford . . .	-	1	1	5	5.00	5	-	-	5	-	-	-
Danvers . . .	-	1	1	8	6.12	6	1	-	7	10	-	-
Essex . . .	-	-	-	4	3.95	1	2	-	3	4	2	2
Georgetown . . .	-	-	-	5	5.00	2	3	-	5	3	3	3
Gloucester . . .	6	-	6	32	25.30	24	1	-	25	24	3	3
Groveland . . .	-	-	-	1	1.00	1	-	-	1	1	-	-
Hamilton . . .	-	-	-	1	1.00	1	-	-	1	-	-	-
Haverhill . . .	4	3	7	17	13.24	11	3	-	14	14	2	2

CHILDREN AND INSANE PERSONS.

TABLE III.—Continued.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.							"same of all Classes Supported July 1, 1881.	Insane visited in Alms- houses March to De- cember, 1881.
	In Alms- houses.	Elsewhere.	Total.	For the Year end- ing Mar. 31, 1881.		Remain'g Mar. 31, 1881.						
				Whole No.	Ave'ge No.	In Hospi- tals.	In Alms- houses.	Elsewhere.	Total.			
ESSEX — Con.												
Ipswich	-	-	-	6	4.61	-	4	-	4	3	5	
Lawrence	11	11	22	55	37.93	17	16	-	33	49	15	
Lynn	22	-	22	58	47.73	43	2	-	45	40	3	
Lynnfield	-	-	-	2	1.50	1	-	-	1	1	-	
Manchester	1	-	1	5	3.53	3	-	-	3	3	-	
Marblehead	2	2	4	14	11.15	5	6	-	11	12	6	
Merrimac	-	-	-	-	-	-	-	-	-	-	-	
Methuen	1	-	1	8	6.36	6	-	-	6	6	-	
Middleton	-	-	-	-	-	-	-	-	-	1	-	
Nahant	-	-	-	-	-	-	-	-	-	-	-	
Newbury	-	-	-	6	5.75	3	-	2	5	3	-	
Newburyport	5	-	5	27	20.64	12	9	-	21	24	7	
North Andover	4	-	4	1	1.00	-	1	-	1	-	2	
Peabody	10	-	10	15	12.40	6	5	-	11	12	6	
Rockport	3	-	3	13	12.20	8	4	-	12	9	5	
Rowley	-	-	-	2	2.00	1	-	1	2	2	-	
Salem	17	-	17	50	43.64	22	22	-	44	48	26	
Salisbury	-	-	-	4	3.41	1	2	-	3	3	2	
Saugus	1	-	1	5	4.19	4	-	-	4	4	1	
Swampscott	-	-	-	6	5.25	5	-	-	5	4	-	
Topshfield	3	-	3	2	2.00	2	-	-	2	2	-	
Wenham	-	-	-	1	.27	-	-	-	-	-	-	
West Newbury	2	-	2	4	2.95	2	1	-	3	3	1	
Total	107	18	125	392	318.89	201	102	4	307	313	107	
FRANKLIN.												
Ashfield	-	-	-	2	1.27	1	-	-	1	1	-	
Barnardston	-	2	2	3	2.75	-	-	3	3	2	-	
Buckland	1	-	1	1	1.00	1	-	-	1	1	1	
Charlemont	1	-	1	2	2.00	1	1	-	2	1	1	
Colrain	-	1	1	2	1.11	1	-	-	1	1	-	
Conway	-	-	-	1	1.00	1	-	-	1	5	-	
Deerfield	-	-	-	3	3.00	3	-	-	3	3	-	
Erving	-	-	-	-	-	-	-	-	-	-	-	
Gill	-	-	-	2	1.91	1	-	-	1	1	-	
Greenfield	-	-	-	3	2.80	2	-	-	2	3	-	
Hawley	-	-	-	-	-	-	-	-	-	-	-	
Heath	1	-	1	2	1.13	-	2	-	2	1	2	
Leverett	-	-	-	2	1.76	2	-	-	2	2	-	
Leyden	-	4	4	1	1.00	1	-	-	1	1	-	
Monroe	-	-	-	-	-	-	-	-	-	-	-	
Montague	-	-	-	2	1.16	1	-	1	2	-	1	
New Salem	-	-	-	-	-	-	-	-	-	-	1	
Northfield	-	-	-	3	2.92	2	-	1	3	2	-	
Orange	-	-	-	3	3.00	2	1	-	3	3	3	
Rowe	-	-	-	1	1.00	1	-	-	1	1	-	
Shelburne	-	-	-	4	3.01	3	-	-	3	3	-	
Shutesbury	-	-	-	1	1.00	-	1	-	1	1	2	
Sunderland	-	9	9	1	1.00	1	-	-	1	1	-	
Warwick	-	-	-	2	1.08	-	1	-	1	1	1	
Wendell	-	-	-	1	1.00	-	1	-	1	-	1	
Whately	-	1	1	2	2.00	2	-	-	2	2	-	
Total	3	17	20	44	37.90	26	7	5	38	36	13	

THE PAUPER ABSTRACT.

TABLE III. — Continued.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.						Insane of all Classes Supported July 1, 1881.	Insane visited in Almshouses March to December, 1881.	
	In Almshouses.	Elsewhere	Total.	For the Year ending Mar. 31, 1881.		Remain'g Mar. 31, 1881.						
				Whole No.	Ave'ge No.	In Hospi- tals.	In Almshouses.	Elsewhere.	Total.			
HAMPDEN.												
Agawam	1	-	1	4	3.98	3	1	-	4	4	1	
Blandford	-	1	1	3	2.25	1	-	2	3	3	1	
Brimfield	3	-	3	3	3.00	1	2	-	3	4	3	
Chester	-	-	-	1	.70	1	-	-	1	1	-	
Chicopee	10	-	10	7	5.86	5	-	-	5	6	1	
Granville	-	1	1	3	3.00	1	-	2	3	1	-	
Hampden	-	-	-	3	3.00	1	-	2	3	3	-	
Holland	-	-	-	2	2.00	-	-	2	2	2	-	
Holyoke	-	8	8	16	12.76	14	-	-	14	14	-	
Longmeadow	-	-	-	1	1.00	1	-	-	1	-	-	
Ludlow	-	4	4	1	1.00	1	-	-	1	2	-	
Monson	-	-	-	2	2.00	2	-	-	2	3	2	
Montgomery	-	-	-	1	.10	-	-	1	1	1	-	
Palmer	1	-	1	9	6.55	4	4	-	8	4	3	
Russell	-	1	1	1	1.00	-	-	1	1	1	-	
Southwick	-	-	-	3	1.16	1	-	-	1	1	-	
Springfield	2	20	22	49	32.64	14	22	-	36	33	23	
Tolland	-	-	-	1	1.00	-	-	1	1	2	-	
Wales	-	-	-	5	4.74	-	-	4	4	4	-	
Westfield	4	-	4	8	8.00	5	3	-	8	8	4	
West Springfield	-	1	1	3	2.60	1	-	1	2	1	-	
Wilbraham	-	-	-	3	2.00	2	-	-	2	2	-	
Total	21	36	57	129	100.34	58	32	16	106	100	58	
HAMPSHIRE.												
Amherst	1	-	1	7	6.26	4	3	-	7	-	3	
Belchertown	1	-	1	4	3.28	-	3	-	3	3	3	
Chesterfield	-	-	-	1	1.00	-	-	1	1	1	-	
Cummington	-	-	-	1	1.00	1	-	-	1	1	-	
Easthampton	-	-	-	3	2.06	2	-	1	3	2	-	
Enfield	-	-	-	1	1.00	-	1	-	1	1	1	
Goshen	-	-	-	-	-	-	-	-	-	-	-	
Granby	-	-	-	4	3.58	2	-	1	3	-	-	
Greenwich	-	-	-	3	2.53	-	2	-	2	2	1	
Hadley	-	-	-	2	2.00	2	-	-	2	2	1	
Hatfield	-	1	1	3	3.00	3	-	-	3	3	-	
Huntington	-	2	2	-	-	-	-	-	-	-	-	
Middlefield	-	-	-	1	1.00	1	-	-	1	1	-	
Northampton	-	-	-	12	11.07	7	2	2	11	12	3	
Pelham	-	-	-	1	.47	-	-	-	-	-	-	
Plainfield	-	-	-	1	1.00	1	-	-	1	1	-	
Prescott	-	-	-	2	.41	-	-	-	-	-	-	
Southampton	-	-	-	1	1.00	1	-	-	1	2	-	
South Hadley	-	-	-	3	2.09	2	-	-	2	1	-	
Ware	1	-	1	7	4.84	5	2	-	7	8	2	
Westhampton	-	-	-	-	-	-	-	-	-	-	-	
Williamsburg	-	-	-	1	1.00	1	-	-	1	1	-	
Worthington	-	-	-	3	3.00	3	-	-	3	3	-	
Total	3	3	6	61	51.59	35	13	5	53	44	14	
MIDDLESEX.												
Acton	-	-	-	3	3.00	2	1	-	3	2	3	
Arlington	5	-	5	6	4.03	3	-	-	3	3	-	

CHILDREN AND INSANE PERSONS.

TABLE III.—Continued.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.							Insane of all Classes Supported July 1, 1881.	Insane visited in Alms- houses March to De- cember, 1881.
	In Alms- houses.	Elsewhere.	Total.	For the Year end- ing Mar. 31, 1881		Remain'g Mar. 31, 1881.						
				Whole No.	Ave'ge No.	In Hospi- tals.	In Alms- houses.	Elsewhere.	Total.			
MIDDLESEX—Con.												
Ashby	-	-	-	1	1.00	-	1	-	1	1	1	1
Ashland	1	-	1	1	1.00	-	1	-	1	1	1	1
Ayer	-	1	1	2	2.00	1	-	1	2	1	-	-
Bedford	5	-	5	2	1.50	-	2	-	2	1	2	2
Belmont	-	-	-	2	1.05	1	-	-	1	1	-	-
Billerica	1	-	1	4	4.00	-	4	-	4	3	4	4
Boxborough	-	-	-	-	-	-	-	-	-	1	-	-
Burlington	2	-	2	2	2.00	-	2	-	2	2	1	1
Cambridge	18	-	18	60	44.49	33	16	-	49	46	20	20
Carlisle	1	-	1	-	-	-	-	-	-	-	-	-
Chelmsford	1	-	1	5	3.93	2	1	-	3	3	1	1
Concord	-	-	-	3	2.09	2	-	-	2	2	-	-
Dracut	-	-	-	4	3.33	1	2	-	3	7	2	2
Dunstable	-	-	-	3	3.00	2	-	1	3	3	-	-
Everett	-	7	7	7	4.41	5	-	-	5	-	-	-
Framingham	1	-	1	1	.22	-	-	-	-	-	1	1
Groton	4	-	4	2	2.00	-	2	-	2	2	2	2
Holliston	1	-	1	8	8.00	5	3	-	8	5	2	2
Hopkinton	3	-	3	9	6.93	3	4	-	7	4	5	5
Hudson	4	-	4	2	.87	-	-	-	-	-	-	-
Lexington	5	-	5	2	2.00	1	1	-	2	1	1	1
Lincoln	-	-	-	2	2.00	2	-	-	2	1	-	-
Littleton	-	-	-	2	2.00	1	1	-	2	2	1	1
Lowell	34	-	34	116	80.69	29	54	-	83	84	60	60
Malden	-	-	-	12	8.89	5	3	-	8	8	2	2
Marlborough	3	-	3	10	7.29	5	3	-	8	5	2	2
Maynard	-	-	-	3	3.00	3	-	-	3	3	-	-
Medford	-	-	-	14	11.44	9	3	-	12	11	2	2
Melrose	-	2	2	7	5.43	5	-	-	5	6	-	-
Natick	1	-	1	7	5.91	6	-	-	6	8	-	-
Newton	2	-	2	18	12.98	10	3	-	13	14	4	4
North Reading	3	-	3	2	2.00	-	2	-	2	2	2	2
Pepperell	2	-	2	8	6.88	1	6	-	7	7	5	5
Reading	-	-	-	7	4.83	3	1	-	4	3	3	3
Sherborn	-	-	-	2	2.00	1	1	-	2	2	1	1
Shirley	-	-	-	-	-	-	-	-	-	-	-	-
Somerville	-	-	-	16	15.37	13	-	1	14	13	-	-
Stoneham	-	-	-	5	4.27	4	-	-	4	3	-	-
Stow	1	-	1	2	.93	1	-	-	1	1	-	-
Sudbury	-	-	-	3	1.63	1	1	-	2	-	1	1
Tewksbury	-	-	-	3	3.00	1	2	-	3	4	1	1
Townsend	-	-	-	2	1.26	-	1	-	1	-	1	1
Tyngsborough	1	-	1	2	2.00	-	2	-	2	1	2	2
Wakefield	-	-	-	13	10.62	10	-	-	10	4	-	-
Waltham	1	-	1	21	17.78	14	5	-	19	19	3	3
Watertown	-	-	-	10	5.79	6	-	-	6	6	-	-
Wayland	-	-	-	5	3.85	-	3	-	3	2	3	3
Westford	-	-	-	7	5.33	3	2	1	6	6	-	-
Weston	-	-	-	2	1.21	1	-	-	1	1	-	-
Wilmington	1	-	1	-	-	-	-	-	-	-	-	-
Winchester	-	-	-	1	1.00	1	-	-	1	1	-	-
Woburn	8	-	8	10	8.70	8	1	-	9	8	5	5
Total	109	10	119	441	338.93	204	134	4	342	315	144	144

THE PAUPER ABSTRACT.

TABLE III. — Continued.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.							Insane of all Classes Supported July 1, 1881.	Insane visited in Alms- houses March to De- cember, 1881.
	In Alms- houses.	Elsewhere.	Total.	For the Year end- ing Mar. 31, 1881.		Remain'g Mar. 31, 1881.						
				Whole No.	Ave'ge No.	In Hospi- tals.	In Alms- houses.	Elsewhere.	Total.			
NANTUCKET.												
Nantucket	2	-	2	9	8.34	3	5	-	8	8	8	
NORFOLK.												
Bellingham	5	-	5	5	3.07	2	1	-	3	4	1	
Braintree	2	-	2	10	8.23	6	3	-	9	6	2	
Brookline	-	23	23	4	4.00	4	-	-	4	4	-	
Canton	-	-	-	6	5.73	4	2	-	6	5	3	
Cohasset	2	-	2	8	7.04	3	4	-	7	9	2	
Dedham	-	-	-	11	9.51	10	1	-	11	10	2	
Dover	-	-	-	1	1.00	-	-	1	1	1	-	
Foxborough	1	-	1	5	3.38	3	-	-	3	3	-	
Franklin	-	-	-	6	5.05	6	-	-	6	6	1	
Holbrook	-	-	-	2	2.00	2	-	-	2	2	-	
Hyde Park	-	8	8	6	5.11	5	-	-	5	5	-	
Medfield	-	-	-	7	5.58	3	2	-	5	5	2	
Medway	2	-	2	4	4.00	4	-	-	4	6	-	
Milton	2	-	2	4	2.21	3	-	-	3	5	-	
Needham	2	-	2	9	7.30	4	3	-	7	9	2	
Norfolk	-	-	-	-	-	-	-	-	-	-	-	
Norwood	-	-	-	1	.50	-	-	-	-	-	-	
Quincy	11	-	11	13	10.30	7	3	-	10	9	3	
Randolph	8	-	8	5	3.12	4	-	-	4	4	1	
Sharon	2	-	2	1	1.00	1	-	-	1	1	1	
Stoughton	2	-	2	9	7.55	3	4	-	7	3	4	
Walpole	-	-	-	3	3.00	3	-	-	3	3	1	
Weymouth	-	-	-	17	16.54	13	2	-	15	12	3	
Wrentham	-	-	-	6	4.07	3	1	-	4	3	2	
Total	39	31	70	143	119.29	93	26	1	120	115	30	
PLYMOUTH.												
Abington	-	1	1	6	6.00	4	1	1	6	4	-	
Bridgewater	-	2	2	5	3.96	-	4	-	4	4	5	
Brockton	2	-	2	12	9.50	7	1	-	8	8	1	
Carver	-	-	-	3	2.27	1	1	-	2	-	1	
Duxbury	-	-	-	6	4.47	4	-	1	5	5	2	
East Bridgewater	-	-	-	5	4.33	2	2	-	4	5	2	
Halifax	-	4	4	1	1.00	1	-	-	1	1	-	
Hanover	2	-	2	3	3.00	2	1	-	3	2	1	
Hanson	-	-	-	-	-	-	-	-	-	1	2	
Hingham	2	-	2	7	4.80	5	1	-	6	3	4	
Hull	-	-	-	-	-	-	-	-	-	-	-	
Kingston	-	-	-	4	2.74	4	-	-	4	4	-	
Lakeville	-	-	-	1	1.00	1	-	-	1	-	-	
Marion	-	-	-	-	-	-	-	-	-	1	-	
Marshfield	1	-	1	-	-	-	-	-	-	-	1	
Mattapoisett	3	-	3	3	1.75	-	1	-	1	1	1	
Middleborough	1	-	1	10	8.70	6	3	-	9	9	3	
Pembroke	-	-	-	3	3.00	1	2	-	3	2	1	
Plymouth	-	-	-	18	16.16	7	7	1	15	17	7	
Plympton	-	-	-	3	2.01	-	2	-	2	2	2	
Rochester	-	-	-	7	5.63	2	3	-	5	3	2	
Rockland	-	-	-	8	4.78	6	1	-	7	7	1	
Scituate	-	-	-	7	5.98	5	-	1	6	5	-	
South Abington	-	-	-	3	1.71	-	2	-	2	-	-	

CHILDREN AND INSANE PERSONS.

TABLE III. — Continued.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.						Insane of all Classes Supported July 1, 1881.	Insane visited in Alms- houses March to De- cember, 1881.
	In Alms- houses.	Elsewhere.	Total.	For the Year end- ing Mar. 31, 1881.		Remain'g Mar. 31, 1881					
				Whole No.	Ave'ge No	In Hospi- tals.	In Alms- houses.	Elsewhere.	Total.		
PLYMOUTH — Con.											
South Scituate . . .	2	—	2	3	3.00	—	3	—	3	2	2
Wareham . . .	1	—	1	3	2.07	1	1	—	2	1	1
W. Bridgewater . . .	5	—	5	3	2.48	1	1	—	2	—	1
Total . . .	19	7	26	124	100.39	60	37	4	101	87	40
SUFFOLK.											
Boston . . .	138	233*	371	894	689.48	668	—	—	668	682	—
Chelsea . . .	—	—	—	20	16.96	17	—	—	17	20	—
Revere . . .	—	—	—	3	2.13	2	—	—	2	2	—
Winthrop . . .	—	1	1	—	—	—	—	—	—	—	—
Total . . .	138	234	372	917	708.57	687	—	—	667	704	—
WORCESTER.											
Ashburnham . . .	3	—	3	—	—	—	—	—	—	1	—
Athol . . .	—	—	—	2	1.97	1	1	—	2	3	1
Auburn . . .	—	—	—	5	4.33	4	—	—	4	4	—
Barre . . .	1	—	1	4	3.71	—	4	—	4	3	3
Berlin . . .	—	1	1	—	—	—	—	—	—	1	—
Blackstone . . .	2	—	2	6	5.66	5	—	—	5	5	1
Bolton . . .	1	—	1	4	4.00	—	4	—	4	4	4
Boylston . . .	—	—	—	3	2.32	1	—	1	2	2	—
Brookfield . . .	—	—	—	6	4.51	3	—	—	3	6	3
Charlton . . .	1	—	1	1	1.00	1	—	—	1	3	1
Clinton . . .	1	—	1	8	5.89	7	—	—	7	8	—
Dana . . .	4	—	4	1	1.00	—	1	—	1	1	1
Douglas . . .	1	—	1	4	3.19	1	2	—	3	4	2
Dudley . . .	—	—	—	3	3.00	1	2	—	3	2	2
Fitchburg . . .	15	—	15	10	8.64	9	—	—	9	10	6
Gardner . . .	7	—	7	8	6.16	2	3	—	5	4	4
Grafton . . .	2	—	2	4	1.73	2	—	—	2	2	—
Hardwick . . .	—	—	—	2	1.23	—	1	—	1	1	2
Harvard . . .	—	—	—	6	5.36	1	4	—	5	5	3
Holden . . .	1	—	1	5	4.03	1	3	—	4	1	2
Hubbardston . . .	—	—	—	—	—	—	—	—	—	—	—
Lancaster . . .	6	—	6	4	3.02	—	4	—	4	2	3
Leicester . . .	2	—	2	7	4.71	2	1	—	3	2	4
Leominster . . .	1	—	1	8	6.09	5	2	—	7	9	1
Lunenburg . . .	1	—	1	5	3.15	3	1	—	4	5	2
Mendon . . .	—	—	—	1	.05	—	—	—	—	—	—
Milford . . .	3	—	3	9	5.71	6	—	—	6	8	—
Millbury . . .	—	1	1	3	3.00	3	—	—	3	3	—
New Braintree . . .	—	—	—	1	1.00	—	—	1	1	—	—
Northborough . . .	—	—	—	3	2.01	1	1	—	2	1	1
Northbridge . . .	—	—	—	5	3.91	3	2	—	5	5	2
North Brookfield . . .	—	—	—	5	3.26	1	2	1	4	3	2
Oakham . . .	—	—	—	1	.23	—	—	—	—	2	—
Oxford . . .	2	2	4	4	3.28	2	1	—	3	2	2
Paxton . . .	—	—	—	2	2.00	—	2	—	2	2	2
Petersham . . .	—	—	—	3	3.00	2	1	—	3	1	2
Phillipston . . .	—	—	—	2	2.00	—	—	2	2	—	—
Princeton . . .	—	1	1	—	—	—	—	—	—	—	—
Royalston . . .	—	—	—	—	—	—	—	—	—	1	—
Rutland . . .	—	—	—	4	4.00	1	3	—	4	3	2

* In Marcella street Home.

THE PAUPER ABSTRACT.

TABLE III.—Concluded.

TOWNS BY COUNTIES.	CHILDREN UNDER 16 FULLY SUP- PORTED MAR. 31, 1881.			INSANE FULLY SUPPORTED.						Insane of all Classes Supported July 1, 1881	Insane visited in Alms- houses March to De- cember, 1881.
	In Alms- houses.	Elsewhere.	Total.	For the Year end- ing Mar. 31, 1881.		Remain'g Mar. 31, 1881.					
				Whole No.	Ave'ge No.	In Hospi- tals.	In Alms- houses.	Elsewhere.	Total.		
WORCESTER—Con.											
Shrewsbury . . .	-	-	-	5	5 00	2	3	-	5	5	4
Southborough . . .	-	1	1	1	1.00	-	-	1	1	-	-
Southbridge . . .	-	-	-	8	7.13	3	4	-	7	3	5
Spencer . . .	-	-	-	10	8.18	3	6	-	9	6	7
Sterling . . .	6	-	6	5	4.22	-	5	-	5	5	6
Sturbridge . . .	-	-	-	-	-	-	-	-	-	-	2
Sutton . . .	3	-	3	4	3.57	2	1	-	3	4	1
Templeton . . .	-	-	-	6	5.54	-	4	1	5	5	4
Upton . . .	7	-	7	2	1.33	2	-	-	2	2	2
Uxbridge . . .	-	-	-	5	4.69	4	1	-	5	5	1
Warren . . .	1	-	1	1	1.00	-	1	-	1	1	1
Webster . . .	1	-	1	9	8.61	9	-	-	9	7	1
Westborough . . .	2	-	2	8	6.40	4	1	-	5	7	1
West Boylston . . .	-	-	-	2	1.68	-	1	-	1	1	1
West Brookfield . . .	1	-	1	1	1.00	1	-	-	1	1	-
Westminster . . .	-	-	-	1	1.00	5	1	-	1	1	1
Winchendon . . .	1	-	1	2	2.00	2	-	-	2	1	1
Worcester . . .	2	-	2	56	41.57	36	8	-	44	45	10
Total . . .	78	6	84	275	222.07	136	81	7	224	218	106

SUMMARY BY COUNTIES.

Barnstable . . .	16	2	18	49	41.24	20	21	-	41	46	24
Berkshire . . .	12	13	25	55	43.17	30	7	6	43	49	9
Bristol . . .	77	1	78	218	170.98	131	38	-	169	179	52
Dukes . . .	-	-	-	15	13.71	9	-	5	14	12	-
Essex . . .	107	18	125	392	318.89	201	102	4	307	313	107
Franklin . . .	3	17	20	44	37.90	26	7	5	38	36	13
Hampden . . .	21	36	57	129	100.24	58	32	16	106	100	38
Hampshire . . .	3	3	6	61	51.59	35	13	5	53	44	14
Middlesex . . .	109	10	119	441	338.93	204	134	4	342	315	144
Nantucket . . .	2	-	2	9	8.34	3	5	-	8	8	8
Norfolk . . .	39	31	70	143	119.29	93	26	1	120	115	30
Plymouth . . .	19	7	26	124	100.39	60	37	4	101	87	40
Suffolk . . .	138	234	372	917	708.57	687	-	-	687	704	-
Worcester . . .	78	6	84	275	222.07	136	81	7	224	218	106
Total . . .	624	378	1,002	2,873	2,275.41	1,693	504	56	2,253	2,226	585
Add State Poor . . .	91	529	620	1,200	876	861	-	-	861	829	-
Aggregate of State and Towns . . .	715	907	1,622	4,072	3,151.41	2,554	504	56	3,114	3,055	585

STATE, CITY, AND TOWN POOR.

TABLE IV. — *Number of the State Poor and of the City and Town Poor remaining in the Establishments at the Close of each Official Year, for Twenty-eight Years.*

YEARS.	STATE POOR.								CITY AND TOWN POOR.		Total of all Classes.
	Tewksbury.	Monson.	Bridgewater.	Rainsford.*	Worcester.	Taunton.	So Boston and Northampton	Total State Poor.	In City and Town Almshouses.†	In Hospitals and Asylums.†	
1854 . .	669	500	503	189	151	38	100	2,150	3,000	300	5,450
1855 . .	928	688	449	218	128	120	100	2,631	2,500	200	5,431
1856 . .	703	713	585	230	141	139	100	2,611	2,700	310	5,621
1857 . .	751	638	598	253	119	150	80	2,589	3,000	320	5,919
1858 . .	822	565	525	212	86	139	176	2,525	2,900	420	5,845
1859 . .	635	495	494	159	87	175	153	2,197	3,000	400	5,597
1860 . .	628	519	481	147	130	196	221	2,322	3,000	410	5,732
1861 . .	974	596	764	163	156	243	216	3,112	3,200	380	6,692
1862 . .	776	596	560	124	189	271	232	2,748	3,100	415	6,263
1863 . .	633	570	536	144	175	238	248	2,544	3,000	425	5,969
1864 . .	649	628	485	35	116	186	216	2,507	2,700	443	5,450
1865 . .	637	541	482	121	91	152	235	2,259	2,800	481	5,540
1866 . .	707	561	311	21	129	147	272	2,148	2,958	498	5,604
1867 . .	686	657	341		101	153	271	2,209	3,003	532	5,744
1868 . .	636	540	425		96	181	264	2,142	3,012	552	5,706
1869 . .	690	397	364		51	145	234	1,881	2,844	655	5,380
1870 . .	655	363	337		35	124	209	1,723	2,758	728	5,209
1871 . .	639	408	397		29	91	215	1,779	2,506	770	5,055
1872 . .	674	381	508		25	85	230	1,703	2,483	844	5,030
1873 . .	762	429	347		48	76	247	1,909	2,496	858	5,263
1874 . .	805	409	375		82	128	291	2,090	2,758	886	5,734
1875 . .	792	449	422		42	135	262	2,102	3,100	1,044	6,306
1876 . .	798	479	503		35	137	253	2,205	3,630	1,180	7,015
1877 . .	919	466	389		51	158	239	2,222	3,969	1,310	7,501
1878 . .	897	473	249	80	174	134	198	2,205	4,022	1,479	7,706
1879 . .	846	421	225	149	191	126	202	2,160	3,563	1,634	7,357
1880 . .	840	370	158	134	240	119	183	2,044	4,017	1,760	7,821
1881 . .	888	352	129	112	209	81	176	1,947	3,818	1,941	7,706

* At Danvers since 1877.

† Approximate till 1866.

NOTE.—The figures for Monson exclude the children committed by courts to the custody of this Board and temporarily placed in the School. The figures for Bridgewater include all the inmates of the State Workhouse. The totals include 100 for each of the years 1854, 1855, and 1856, and 80 for each of the years 1857 and 1858, supported by the State at the Boston Lunatic Hospital. See also the long note to Table XIX.

THE PAUPER ABSTRACT.

TABLE V.—*Average Number of the State and the City and Town Poor in Establishments for Twenty-eight Years.*

YEARS.	STATE POOR.								CITY AND TOWN POOR.		Total Average State, City, and Town Poor.
	Tewksbury.	Monson.	Bridgewater.	Rainford.*	Worcester.	Taunton.	So. Boston and Northampton.	Total State Poor.	In Town Almshouses.	In Hospitals and Asylums.	
1854	705	354	382	168	90	60	100	1,859	3,524	300	5,683
1855	838	633	541	206	70	50	100	2,538	2,595	300	5,433
1856	831	706	557	220	100	80	100	2,694	2,945	305	5,944
1857	770	640	597	250	139	86	80	2,642	3,554	320	6,516
1858	940	823	770	236	172	153	80	3,254	3,254	375	6,883
1859	779	581	604	171	184	181	165	2,675	3,105	410	6,190
1860	668	570	579	169	154	202	195	2,537	3,290	405	6,232
1861	900	590	631	165	168	238	219	2,911	3,385	395	6,691
1862	913	649	708	155	184	276	271	3,156	3,377	400	6,933
1863	737	601	608	116	184	258	247	2,750	3,233	420	6,403
1864	733	557	560	88	145	212	232	2,527	2,866	434	5,827
1865	732	605	582	68	106	173	225	2,591	2,896	465	5,952
1866	717	543	482	101	143	162	251	2,399	2,984	490	5,873
1867	757	628	331	1	138	142	262	2,259	3,000	515	5,774
1868	731	646	408		95	167	262	2,309	3,010	560	5,879
1869	710	500	412		74	164	248	2,108	3,004	650	5,762
1870	724	442	335		52	147	237	1,937	2,752	720	5,409
1871	749	388	385		44	133	230	1,929	2,680	745	5,354
1872	759	373	372		37	113	227	1,881	2,590	788	5,259
1873	816	367	332		50	95	248	1,908	2,578	842	5,328
1874	881	413	403		63	117	284	2,161	2,715	865	5,741
1875	844	417	435		68	145	274	2,183	2,879	849	5,911
1876	916	422	427		53	160	259	2,227	3,331	1,039	6,597
1877	924	451	457		53	160	255	2,300	3,747	1,158	7,205
1878	943	481	302	25	154	154	212	2,271	3,903	1,288	7,462
1879	945	448	309	142	185	134	200	2,363	3,977	1,402	7,742
1880	916	387	243	146	211	126	197	2,226	3,698	1,543	7,467
1881	878	360	229	139	236	118	181	2,141	3,654	1,850	7,645

* At Danvers since 1877.

NOTE.—The same remarks apply here as in Table IV.

NUMBER AND COST OF STATE PAUPERS.

TABLE VI. — General Statistics of City and Town Paupers for Eighteen Years, with Number and Cost of State Paupers added.

YEARS ENDING SEPTEMBER 30.*	CITY AND TOWN POOR.					TOWN AND STATE POOR FULLY SUP- PORTED IN ALMSHOUSES †					TOWN AND STATE POOR FULLY SUP- PORTED OUT OF ALMSHOUSES ‡					STATE POOR PAR- TIALY SUPPORTED.			
	A'Vege No.	Fully Sup- ported	Whole No.	Partially Supported.	Total Ex- penses reported	Whole No.	Supported.	A'Vege No.	Supported.	Reported Alms-house Expenses.	A'Vege Week- ly Cost.	Whole No.	Supported.	A'Vege No.	Supported.	Reported Expenses.	A'Vege Week- ly Cost.	Whole No.	Relieved.	Cost of Re- lief.
1864	•	3,471	4,456	21,000†	\$546,847	9,830	4,804	\$364,795	\$1 46	1,540	1,141	\$200,105	\$3 37	179	\$2,457				
1865	•	3,896	5,316	27,135	610,729	10,031	4,884	418,882	1 65	1,857	1,504	213,274	2 73	902	10,551				
1866	•	4,004	5,715	24,335	746,160	10,409	4,847	501,100	1 99	1,892	1,556	250,947	3 04	1,445	23,888				
1867	•	3,982	5,862	26,014	758,360	9,327	4,717	507,025	2 07	2,038	1,524	272,957	3 44	1,736	24,573				
1868	•	3,998	5,706	28,461	832,592	9,101	4,795	515,808	2 19	2,032	1,512	280,981	3 57	1,633	22,827				
1869	•	3,900	5,633	23,529	837,018	8,315	4,636	505,713	2 10	2,074	1,470	285,484	3 72	1,766	21,201				
1870	•	3,808	5,533	23,874	854,610	7,994	4,256	529,066	2 39	2,196	1,498	274,814	3 58	1,536	22,057				
1871	•	3,851	5,523	23,775	894,529	7,755	4,236	534,811	2 43	2,267	1,584	296,324	3 60	1,675	22,456				
1872	•	3,808	5,311	23,755	906,819	7,392	4,132	542,267	2 51	2,304	1,601	280,893	3 37	1,818	23,720				
1873	•	3,848	5,708	27,070	980,404	7,604	4,150	541,702	2 51	2,433	1,639	318,581	3 66	2,344	23,789				
1874	•	4,957	6,646	33,074	1,039,688	8,306	4,480	471,397	2 02	2,629	1,837	360,537	3 79	2,607	21,486				
1875	•	4,249	6,646	55,591	1,172,416	8,759	4,655	605,027	2 50	2,785	1,891	379,033	3 85	2,833	22,737				
1876	•	4,977	9,749	65,988	1,321,011	9,676	5,192	593,419	2 20	3,070	2,156	415,582	3 71	2,833	22,737				
1877	•	5,642	8,613	74,384	1,450,624	10,516	5,662	646,830	2 20	3,388	2,400	439,845	3 52	9,553	33,315				
1878	•	5,921	8,979	72,489	1,434,335	10,448	5,685	632,747	2 14	3,325	2,622	468,230	3 43	23,000	57,500				
1879	•	6,106	9,225	72,881	1,384,977	10,131	5,739	585,516	1 96	3,899	2,844	527,580	3 57	20,000	45,000				
1880	•	6,221	9,196	58,916	1,332,902	9,719	5,521	538,322	1 98	4,346	3,096	528,168	3 28	14,000	36,000				
1881	•	6,344	9,555	52,523	1,393,664	9,899	5,192	555,785	2 08	4,713	3,491	554,885	3 06	16,000	36,000				

* From 1874 to 1881, inclusive, the figures relating to city and town poor are for years ending March 31.

† For the sake of uniformity this applies to all the inmates at Monson and Bridgewater, since the almshouses there were closed in 1872 as well as before. In the same way the poor and the neglected children in Boston are included among a almshouse cases, though not strictly in almshouses.

‡ None of the inmates at Monson and Bridgewater are here included, being given under the previous heading.

NOTE. — The "State poor partially supported" are included in the "whole number partially supported" of the city and town poor, in which also there are many duplications. Among the "State poor partially supported", there are but few duplications up to 1877, — after that a great many, until 1880. Among the "State poor fully supported out of almshouses" since 1870, are included the children of the Massachusetts Infant Asylum, for whom the State pays. The cost of supervision by the State authorities and the overseers of the poor is not included in this table, although previous to 1874 the town almshouse expenses include, in part at least, the cost of supervision.

THE PAUPER ABSTRACT.

TABLE VII.—*Number of State, Town, and Private Patients remaining in the Public Hospitals and Asylums on the 30th of September, for Eighteen Years.* [See Note to Table XIX.]

YEARS.	AT WORCESTER. (Hospital.)			AT WOR'S R (Asylum.)		AT TAUNTON. (Hospital.)			AT NORTHAMPT'N (Hospital.)		
	State Patients.	Town Patients.	Private Patients.	State Patients.	Town Patients.	State Patients.	Town Patients.	Private Patients.	State Patients.	Town Patients.	Private Patients.
1864	116	125*	113*	-	-	186	137*	40*	216	45	73
1865	91	132*	118*	-	-	152	145	45	235	48	69
1866	129	133*	115*	-	-	147	146	48	272	52	81
1867	101	142	114	-	-	153	172	51	271	49	93
1868	96	141	145	-	-	181	168	49	264	51	106
1869	51	173	152	-	-	145	194	44	234	63	105
1870	35	193	181	-	-	124	208	50	209	73	123
1871	29	211	181	-	-	91	213	78	215	89	116
1872	25	241	173	-	-	85	261	68	230	99	104
1873	48	244	177	-	-	76	290	68	247	101	85
1874	82	244	159	-	-	128	308	72	291	110	75
1875	42	296	140	-	-	135	394	73	262	139	75
1876	35	320	132	-	-	137	485	70	253	148	63
1877	51	355	122	-	-	158	563	55	239	175	61
1878	77	303	129	97	278	134	387	58	198	179	52
1879	73	300	116	118	253	126	378	55	202	184	56
1880	120	311	102	120	253	119	378	59	183	206	57
1881	114	363	108	95	272	81	411	56	176	229	58

TABLE VII.—*Concluded.*

YEARS.	AT DANVERS.			AT TEWKSBURY.	AT SOMERVILLE.	AT SOUTH BOSTON.		AT IPSWICH.		TOTALS BY CLASSES.			Total of all Classes.
	State Patients.	Town Patients.	Private Patients.	State Patients.	Private Patients.	Town Patients.	Private Patients.	Town Patients.	Private Patients.	State Patients.	Town Patients.	Private Patients.	
1864	-	-	-	130*	200	116	51	25	7	648	448	484	1,580
1865	-	-	-	138*	192	129	50	27	7	616	481	481	1,578
1866	-	-	-	145	203	133	44	34	9	693	498	504	1,695
1867	-	-	-	248	181	130	36	39	15	773	532	490	1,795
1868	-	-	-	264	173	154	25	38	14	805	532	512	1,869
1869	-	-	-	267	186	185	19	40	16	697	655	522	1,874
1870	-	-	-	294	186	207	15	47	19	662	728	574	1,964
1871	-	-	-	295	170	223	17	34	17	630	770	579	1,979
1872	-	-	-	299	174	200	14	43	18	639	844	551	2,034
1873	-	-	-	303	163	178	13	45	19	674	858	525	2,057
1874	-	-	-	319	150	183	22	41	20	820	886	498	2,204
1875	-	-	-	286	159	172	29	43	19	725	1,044	495	2,264
1876	-	-	-	284	159	177	18	50	21	711	1,180	463	2,354
1877	-	-	-	286	183	166	26	51	20	734	1,310	467	2,511
1878	80	107	35	251	163	170	26	55	15	837	1,479	478	2,794
1879	149	334	50	202	160	130	23	54	12	870	1,634	472	2,976
1880	134	395	78	191	163	136	26	49	12	867	1,760†	497	3,124†
1881	112	432	82	227	153	154	24	46	12	805	1,941†	493	3,239†

* Approximate.

† Includes 32 town patients at Tewksbury.

‡ Includes 34 town patients at Tewksbury.

EXPENDITURES AT THE STATE ESTABLISHMENTS.

TABLE VIII. — *Population and Expenses of the State Establishments for the Year ending Sept. 30, 1881.*

ESTABLISHMENTS.	Persons Admitted.	Whole Number Maintained.	Deaths.	Births.	Average Number employed by Inspector of Charities.	Whole Sum derived from the State Treasury.	NET COST TO THE STATE.		NET COST TO THE PUBLIC.	
							Current Expenses.	Average Weekly Cost.	Current Expenses.	Average Weekly Cost.
Worcester Hospital . .	241	770	47	—	570.2	\$22,353.50	\$17,401.45	\$2.56	\$105,000.00	\$3.51
Worcester Asylum . .	28	401	24	—	362.1	18,980.42	14,074.16	2.60	60,000.00	3.18
Taunton Hospital . .	267	813	54	—	563.8	21,162.92	14,200.42	2.31	104,000.00	3.56
Northampton Hospital . .	120	561	26	—	452.	31,218.89	26,089.62	2.77	75,500.00	3.21
Danvers Hospital . .	488	1,088	94	—	614.5	54,604.79	28,413.88	3.94	142,000.00	4.44
Tewksbury Almshouse . .	1,891	2,728	216	113	910.	99,206.94	73,409.01	1.55	89,300.00	1.89
Bridgewater Workhouse . .	436	582	12	5	228.7	46,930.33	32,333.62	2.72	33,100.00	2.86
Monson School . .	244	648	4	2	430.5*	56,865.17	50,131.47	2.25	50,800.00	2.23
Westborough School . .	126	293	1	—	179.2	39,637.53	20,147.48	2.16	40,000.00	4.29
Lancaster School . .	51	108	1	—	62.7	16,228.91	11,161.78	3.42	13,500.00	3.93
Total	3,892	7,992	479	120	4,373.7	\$107,189.40	\$287,425.89	\$2.22	\$713,200.00	\$3.13
Total, excluding transfers . .	3,729	7,655	—	—	—	—	—	—	—	—
Idiot School	36	156	—	—	117.	17,500.00	17,500.00	2.88	18,500.00	3.04

* Including 7 children boarded outside and paid for from the current appropriation.

THE PAUPER ABSTRACT.

TABLE IX. — *Valuation of the State Establishments Sept. 30, 1881.*

ESTABLISHMENTS.	Number of Acres of Land.	Value of Land.	Value of Buildings.	Value of Personal Property.	Total Valuation.	Valuation of 1880.	Increase of Valuation.
Worcester Hospital . . .	365.	\$280,000 00	\$882,225 00	\$147,690 00	\$1,309,915 00	\$1,294,985 00	\$14,930 00
Worcester Asylum . . .	11.13	193,880 00	235,000 00	32,934 00	461,814 00	461,739 00	75 00
Taunton Hospital . . .	134.	26,800 00	298,000 00	89,202 00	414,002 00	423,873 00	9,871 00*
Northampton Hospital . . .	340.	40,000 00	268,000 00	69,814 00	377,814 00	374,920 00	2,894 00
Danvers Hospital . . .	197.	19,700 00	1,500,000 00	102,124 00	1,621,824 00	1,609,205 00	12,619 00
Tewksbury Almshouse . . .	245.	24,190 00	247,425 00	127,734 00	399,349 00	393,662 00	5,687 00
Bridgewater Workhouse . . .	226.5	23,900 00	132,186 00	57,716 00	213,802 00	204,318 00	9,484 00
Monson School . . .	230.	22,665 00	93,500 00	67,558 00	183,723 00	180,531 00	3,192 00
Westborough School . . .	262.96	21,200 00	188,200 00	95,706 00	305,106 00	317,276 00	12,170 00*
Lancaster School . . .	186.	7,300 00	43,800 00	18,642 00	69,742 00	65,656 00	4,086 00
Total . . .	2,197.59	\$659,635 00	\$3,888,336 00	\$809,120 00	\$5,357,091 00	\$5,326,165 00	\$30,926 00
Idiot School . . .	100 25	†	44,434 00	27,631 00	72,065 00	63,584 00	9,081 00

* Decrease.

† Included in the value of buildings.

VALUATION OF STATE ESTABLISHMENTS.

TABLE X. — *Classified Valuation of Personal Property at the State Establishments Sept. 30, 1881.*

ESTABLISHMENTS.	Live Stock on the Farm.	Produce of the Farm on hand.	Carrriages and Agricultural Im- plements.	Machinery and Mechanical Fixtures.	Beds and Bedding in the Inmates' Department.	Other Furniture in the Inmates' Department.	Personal Prop- erty of the State in Superin- tendent's Dept.
Worcester Hospital . .	\$6,044 00	\$6,163 80	\$4,731 02	\$66,067 02	\$19,854 01	\$14,230 82	\$13,105 94
Worcester Asylum . .	175 00	—	531 00	2,600 00	8,656 35	3,231 20	8,721 25
Taunton Hospital . .	3,015 00	1,190 00	2,036 50	37,000 00	15,079 00	7,221 30	11,849 80
Northampton Hospital . .	5,194 00	8,480 00	3,997 00	9,579 00	11,650 25	4,816 83	9,342 37
Danvers Hospital . .	5,014 80	4,585 50	4,386 70	23,222 10	17,653 93	11,135 51	15,755 61
Tewksbury Almshouse . .	7,996 22	12,031 85	4,635 05	42,856 56	16,894 35	11,266 63	10,770 90
Bridgewater Workhouse . .	4,722 25	10,104 87	3,556 15	19,205 00	5,958 50	5,397 01	3,156 20
Monson School . .	6,148 60	6,554 60	3,489 40	24,722 20	4,433 37	5,131 94	7,056 46*
Westborough School . .	4,565 55	4,018 04	3,896 11	9,742 38	6,807 95	†	14,480 19
Lancaster School . .	2,051 50	3,047 37	1,682 20	—	1,002 70	2,577 80	873 33
Total . .	\$44,926 92	\$56,176 02	\$32,941 13	\$234,994 26	\$107,990 41	\$65,009 07	\$95,112 05
Idiot School . .	—	—	50 00	2,000 00	1,000 00	500 00	1,000 00

* Includes \$397.95 classed as "Miscellaneous."

† Included in the preceding column.

THE PAUPER ABSTRACT.

TABLE X. — *Classified Valuation of Personal Property, etc. — Concluded.*

ESTABLISHMENTS.	Ready-made Clothing.	Dry Goods.	Provisions and Groceries.	Drugs and Medicines.	Fuel.	Library.	Funds and Investments.	Total.
Worcester Hospital . .	\$804 55	\$1,316 95	\$5,102 94	\$500 00	\$2,980 16	\$1,166 42	\$5,621 84	\$147,689 47
Worcester Asylum . .	1,723 87	1,420 89	4,409 68	161 30	1,203 60	100 00	—	32,934 14
Taunton Hospital . .	*	3,428 24	2,282 08	600 00	1,000 00	500 00	4,000 00	89,201 92
Northampton Hospital . .	3,144 71	2,622 68	3,452 06	500 00	6,234 75	800 00	—	69,813 65
Danvers Hospital . .	1,398 33	1,935 41	2,907 95	489 33	13,241 80	397 25	—	102,124 25
Tewksbury Almshouse . .	9,649 21	667 88	3,621 56	1,038 52	5,680 65	625 00	—	127,734 38
Bridgewater Workhouse . .	3,113 59	424 09	651 85	214 00	612 50	600 00	—	57,716 01
Monson School . .	3,266 55	938 14	1,567 65	200 00	3,301 00	748 15	—	67,558 06
Westborough School . .	4,085 27	1,538 18	1,847 93	151 00	3,505 90	357 00	40,710 74	95,706 24
Lancaster School . .	450 00	350 00	574 00	—	816 00	650 00	4,566 56	18,641 46
Total . .	\$27,636 08	\$14,642 46	\$26,417 70	\$3,854 15	\$38,576 36	\$5,943 82	\$54,899 14	\$809,119 58
Idiot School . .	—	—	400 00	5 00	2,000 00	—	20,676 00	27,631 00

* Included in "Dry Goods."

RECEIPTS OF STATE ESTABLISHMENTS.

TABLE XI. — *Receipts of the State Establishments for the Year ending Sept. 30, 1881.*

ESTABLISHMENTS.	CASH ON HAND Oct. 1, 1880.		APPROPRIATIONS FOR CURRENT EXPENSES.					From Farm and the Labor of Inmates.	FOR SUPPORT.		From all other Sources.	Total Receipts at the Establishments.	Other Receipts on Ac- count of the Estab- lishments.
	Funds and In- vestments.	Available Cash on Hand.	From Unex- pended Appro- priations of Former Calen- dar Years.	From Ordinary Appropriations of Present Cal- endar Year.	Total from Ap- propriations for Current Expenses.	From Special Appro- priations.	From Towns.		From Individ- uals.				
Worcester Hospital . .	\$5,446 17	\$24,627 41	\$10,793 72	\$11,559 78	\$22,353 50	-	\$1,143 05	\$64,638 10	\$29,042 69	-	\$2,660 16	\$149,911 08	\$4,892 05
Worcester Asylum . .	-	*7,011 52	10,129 96	8,850 46	18,980 42	-	-	47,088 07	-	-	640 37	73,720 38	4,906 26
Taunton Hospital . .	8,000 00	-	10,712 98	10,449 94	21,162 92	-	-	71,750 80	12,912 97	-	6,531 44	120,358 13	6,962 50
Northampton Hospital .	-	15,289 54	8,009 15	23,209 74	31,218 89	-	1,099 98	38,376 78	15,677 30	-	1,698 15	103,36 64	5,129 27
Danvers Hospital . .	-	2,465 42	6,454 47	34,733 32	41,187 79	\$13,417 20	1,552 45	71,417 47	22,507 56	-	126,326 76	178,874 65	12,773 91
Tewksbury Almshouse .	-	-	22,668 11	68,832 74	91,500 85	7,706 09	-	-	-	-	2,213 16	101,420 10	15,878 68
Bridgewater Workhouse .	-	-	14,233 17	24,213 45	38,446 62	8,483 71	1,499 35	-	-	-	-	48,429 68	4,613 65
Monson School . .	-	-	11,774 14	41,583 30	53,357 44	3,507 73	130 50	-	-	-	24 48	57,020 15	3,067 99
Westborough School . .	40,222 36	295 73	10,950 07	28,687 46	39,637 53	-	10,446 05	-	-	-	2,584 73	93,186 40	7,941 36
Lancaster School . .	4,124 95	234 24	4,324 03	11,454 87	15,778 90	450 01	\$1,737 62	-	-	-	651 81	23,087 53	2,658 72
Total	\$57,793 48	\$50,023 86	\$110,049 80	\$263,575 06	\$373,624 86	\$33,564 74	\$17,609 00	\$293,271 22	\$80,140 52	\$43,331 06	\$949,358 74	\$68,824 39	-
Idiot School	17,929 43	4,311 74	-	17,500 00	17,500 00	-	-	6,059 84	412 17	-	1,423 36	47,636 54	-

* Including \$396.08 deposited by inmates.

† Chiefly loans.

‡ From farm, \$1,729.75; labor, \$8,716.30.

§ From farm, \$1,327.17; labor, \$410.45.

NOTE. — The last column in this table contains the sums collected by the Superintendent of In-door Poor for the board of inmates, and paid by him directly into the State Treasury, without entering into the account of each establishment. In the column headed "Ordinary Appropriations of Present Calendar Year" the aggregate of the three schools at Monson, Westborough, and Lancaster, is \$81,725.63, in which is included \$801.19 drawn from a special appropriation for ex-
penses of the trustees.

THE PAUPER ABSTRACT.

TABLE XII. — *Expenditures at the State Establishments for the Year ending Sept. 30, 1881.*

CURRENT EXPENSES.									
ESTABLISHMENTS.	Salaries, Wages, and Labor.	Provisions and Supplies.	Clothing.	Fuel and Lights.	Medicines and Medical Supplies.	Furniture, Beds, and Bedding.	Transporta- tion and Travelling Expenses.	Ordinary Repairs.	Expenses of Trustees.
Worcester Hospital .	\$34,322 65	\$35,742 33	\$5,823 42	\$14,976 17	\$789 37	\$1,489 74	\$577 79	\$4,444 25	\$116 23
Worcester Asylum .	19,988 98	19,562 00	3,766 21	7,881 05	236 02	4,777 36	275 63	3,000 00	58 86
Taunton Hospital .	29,783 99	44,302 99	5,283 57	6,183 72	1,537 47	4,556 06	753 10	7,721 48*	70 46
Northampton Hospital,	25,434 52	25,631 34	3,562 25	8,118 26	1,539 87	2,900 08	378 87	3,032 91	102 77
Danvers Hospital .	43,197 99	48,071 03	2,906 76	22,524 63	687 36	3,626 59	1,657 04	2,627 91	262 47
Tewksbury Almshouse,	18,252 60	40,204 03	7,378 09	8,142 88	2,136 20	1,645 81	2,809 99	4,046 88	425 19
Bridgewater Workhouse,	8,996 51	12,703 12	2,140 04	2,911 20	579 70	974 85	566 43	1,777 86	191 70
Monson School . .	15,994 60	15,921 59	2,093 78	4,196 66	298 49	830 13	629 88	2,602 15	374 16†
Westborough School .	15,294 71	9,826 66	1,243 53	1,639 85	91 38	1,089 39	1,297 20	523 62	292 43†
Lancaster School . .	6,087 50	3,442 91	1,231 67	640 20	44 16	203 82	598 69	1,483 54	134 60†
Total . . .	\$217,354 05	\$255,408 00	\$35,429 32	\$77,244 62	\$7,940 02	\$25,093 83	\$9,544 62	\$31,260 60	\$2,028 87
Idiot School . .	8,065 17	6,123 75	79 04	2,289 41	42 06	1,219 49	—	1,329 30	54 60

* This exceeds, by at least \$2,500, the usual cost of ordinary repairs at the other lunatic hospitals; and that amount is deducted from the reported current expenses by the Inspector of Charities in computing the average weekly cost.

† Sums drawn from the \$1,000 appropriated for expenses of the trustees, and here distributed between the three schools in proportion to their general appropriations.

EXPENDITURES AT THE STATE ESTABLISHMENTS.

TABLE XII. — *Expenditures at the State Establishments* — Concluded.

ESTABLISHMENTS.	CURRENT EXPENSES — <i>Con.</i>		EXTRAORDINARY EXPENSES.				Total Disbursements.	Average Cost as estimated by the Superintendent Weekly
	All other Ordinary Expenses.	Total Current Expenditures.	Buildings and Improvements.	Extraordinary Repairs.	Miscellaneous Disbursements.	Total Extraordinary Expenditures.		
Worcester Hospital .	\$7,812 38	\$109,094 33	\$8,939 46	\$10,826 83	\$1,018 58	\$20,784 87	\$129,879 20	\$3 68
Worcester Asylum .	1,445 84	60,991 95	—	7,147 13	6 39	7,153 52	68,145 47	3 24
Taunton Hospital .	4,197 71	104,390 55	7,967 58	—	—	7,967 58	112,358 13	3 56
Northampton Hospital .	8,163 36	78,864 23	9,291 03	—	—	9,291 03	88,155 26	3 24
Danvers Hospital .	18,408 02	143,969 80	13,417 20	—	19,500 00*	32,917 20	176,887 00	4 46
Tewksbury Almshouse .	6,459 18	91,500 85	7,706 09	—	2,213 16	9,919 25	101,420 10	1 87
Bridgewater Workhouse .	2,686 34	33,557 75	13,372 58	—	1,499 35	14,871 93	48,429 68	3 23
Monson School .	7,394 57	50,336 01	4,264 05	2,216 07	204 02	6,684 14	57,020 15	2 22
Westborough School .	7,461 31†	38,760 08	—	1,555 86†	14,508 52§	16,064 38	54,824 46	4 20
Lancaster School .	1,557 84	15,424 93	353 97	450 01	2,168 60	2,972 58	18,397 51	4 67
Total	\$65,586 55	\$726,890 48	\$65,311 96	\$22,195 90	\$41,118 62||	\$28,626 48	\$855,516 96	\$3 20
Idiot School . . .	567 27	19,770 09	5,434 00	—	356 27	5,790 27	25,560 36	3 17

* Loans repaid.

† Includes expenses of sleigh-shop, \$4,594.07.

‡ Of this amount \$678.41 was paid from the "Lyman Fund."

§ Of this sum \$3,959.83 were expended from the "Funds."

|| This amount includes sums paid by law into the State Treasury as follows: at Tewksbury, \$2,213.16; Bridgewater, \$1,499.35; Monson, \$154.98; Westborough, \$10,548.69; Lancaster, \$1,958.40, — in all, \$16,374.58.

THE PAUPER ABSTRACT.

TABLE XIII. — *Financial Condition of the State Establishments Sept. 30, 1881.*

ESTABLISHMENTS.	LIABILITIES.			RESOURCES.					Balance in Favor of the Establishments.*
	Salaries Unpaid.	Bills Payable.	Loans and Interest due.	Total Liabilities.	Cash on Hand, including Funds.	Bills Receivable.	Unexpended Appropriations.	Tot'l Resources applicable to Expenses.	
Worcester Hospital . .	\$2,797 12	\$5,832 50	-	\$8,629 62	\$20,207 55	\$30,406 30	-	\$44,992 01	\$41,984 23
Worcester Asylum . .	1,555 73	3,671 04	\$487 39	5,714 16	5,574 91	16,082 95	-	21,657 86	15,943 70
Taunton Hospital . .	3,670 02	11,329 98	19 46	15,019 46	4,000 00	27,238 84	-	31,238 84	16,219 38
Northampton Hospital .	3,521 35	2,189 70	-	5,711 05	15,205 38	21,391 72	-	36,597 10	30,886 05
Danvers Hospital . .	1,675 00	17,569 80	4,000 00	23,244 80	1,987 65	32,879 87	\$582 80	35,450 32	12,205 52
Tewksbury Almshouse .	-	-	-	-	-	-	21,936 28	21,936 28	21,936 28
Bridgwater Workhouse .	-	-	-	-	-	-	15,786 55	15,786 55	15,786 55
Monson School . .	-	1,250 00	-	1,250 00	-	-	18,875 97†	18,875 97	17,625 97
Westborough School . .	-	-	-	-	40,961 94	-	11,677 54†	11,928 74	52,639 48
Lancaster School . .	-	-	-	-	4,677 46	-	6,797 62†	6,909 58	11,475 58
Total	\$13,219 22	\$41,843 02	\$4,506 85	\$59,569 09	\$92,614 89	\$127,999 68	\$75,657 26	\$245,373 25	\$236,702 74
Idiot School	-	-	-	-	23,660 00	-	-	2,984 06	2,984 06

* Including special funds, not in general applicable to current expenses, as follows: at Worcester Hospital, \$5,621.84; at Westborough, \$40,710.74; at Lancaster, \$4,566.56; — in all, \$50,899.14. The balance applicable to current expenses is \$185,804.16; at the hospitals, \$111,617.04; at the other establishments, \$73,988.31, — the latter to pay their expenses from Oct. 1, 1881, to Jan. 1, 1882.

† Including unexpended balances of the appropriation for trustees' expenses, here estimated at \$92.84 for Monson, \$72.57 for Westborough, and \$33.40 for Lancaster.

COMPARATIVE COST OF DIFFERENT ITEMS.

TABLE XIV. — Comparative Cost of Different Items by the Week.

ESTABLISHMENTS.	Reported Average Number of Inmates.	Salaries, Wages, and Labor.	Provisions and Supplies.	Clothing.	Fuel and Light.	Medicines and Medical Supplies.	Furniture, Beds, and Bedding.	Transportation and Travelling Expenses.	Ordinary Repairs.	All other Ordinary Expenses.	AVERAGE WEEKLY COST.	
											Estimated by the Superintendent.	Estimated by the Inspector of Charities.
Worcester Hospital .	569.98	\$1 15.8	\$1 20.6	\$0 19.6	\$0 50.5	\$0 02.7	\$0 15.1	\$0 01.9	\$0 15.	\$0 26.7	\$3 68	\$3 51
Worcester Asylum .	362.09	1 06.2	1 03.9	20.	41.9	01 2	25.4	01.5	15.9	08.	3 24	3 18
Taunton Hospital .	564.	1 01.5	1 51.1	18.	21.1	05.2	15.5	02.2	26.	14.5	3 56	3 56
Northampton Hospital,	451.79	1 08.2	1 09.1	15.2	34.5	06.5	12.3	01.6	12.9	35.2	3 24	3 21
Danvers Hospital .	614.45	1 35.2	1 50.4	09.1	70.5	02.1	11.3	05.2	08.2	58.4	4 46	4 44
Tewksbury Almshouse,	910.00	38.5	85.	15.6	17.2	04.5	03.5	05.9	08.5	14.5	1 87	1 89
Bridgewater W'khuse,	228.6	75.6	1 06.8	17.9	23.9	04.9	08.3	04.7	14.9	24.1	5 23	2 86
Monson School .	431.	71.3	71.	09.3	18.7	01.3	03.7	02.8	11.6	34.7	2 22	2 23
Westborough School .	179.6	1 63.8	1 06.3	13.3	17.5	01.	11.6	13.9	05.6	88.	4 20	4 29
Lancaster School .	62.94	1 86.	1 05.2	37.6	19.5	01.3	06.2	18.3	45.3	51.7	4 67	3 93
Idiot School .	120.	1 29.6	98.1	01.2	38.6	00.7	19.5	-	21.3	00.9	3 17	3 04
Total . . .	4,494.45	\$0 97.3	\$1 12.7	\$0 15.6	\$0 34.1	\$0 03.4	\$0 11.2	\$0 04.1	\$0 14.0	\$0 29.2	\$3 20	\$3 13

THE PAUPER ABSTRACT.

TABLE XV. — PAUPERISM IN CITIES FOR THREE YEARS.

CITIES.	Population in 1880.	JAN. 1, 1879.					JAN. 1, 1880.					JAN. 1, 1881.				
		In sane.	Full Support.	Partial Support.	Vagrants.	Total.	In sane.	Full Support.	Partial Support.	Vagrants.	Total.	In sane.	Full Support.	Partial Support.	Vagrants.	Total.
Fall River	49,006	—	185	1,384	5	1,574	45	211	1,386	2	1,599	43	166	496	2	664
New Bedford	26,875	—	92	872	5	969	26	83	844	1	928	39	102	577	1	680
Taunton	21,213	—	92	343	1	436	31	83	295	8	386	42	94	203	—	297
Gloucester	19,329	—	61	355	4	420	24	59	414	7	480	22	58	426	1	485
Haverhill	18,475	—	58	356	3	417	13	49	141	1	191	14	50	118	2	170
Lawrence	39,178	—	73	528	11	612	42	68	402	5	475	39	75	328	4	407
Lynn	38,284	—	90	713	7	810	41	101	461	13	575	45	98	453	8	559
Newburyport	13,537	—	70	644	—	714	25	85	303	—	388	21	75	305	—	380
Salem	27,598	—	120	374	3	497	34	117	248	4	369	46	148	266	2	416
Holyoke	21,851	—	27	182	2	211	13	45	197	2	244	15	32	221	2	255
Springfield	33,340	—	84	416	2	502	25	95	162	1	198	37	95	78	—	173
Cambridge	52,740	—	135	244	16	395	46	126	267	15	408	43	114	172	3	289
Lowell	59,485	—	224	353	18	595	76	220	213	4	437	82	211	164	3	378
Newton	16,995	—	32	277	13	322	9	29	217	2	248	11	34	195	—	229
Somerville	24,985	—	17	497	4	518	15	20	751	6	777	15	20	455	—	475
Boston	362,535	—	1,289	4,956	200	6,445	566	1,463	4,487	66	6,016	618	1,510	4,900	138	6,548
Chelsea	21,785	—	28	437	2	467	24	28	250	6	284	19	30	195	2	227
Fitchburg	12,405	—	54	290	2	346	10	47	240	2	289	9	48	161	—	209
Worcester	58,295	—	77	461	9	547	41	92	691	11	794	37	95	773	3	871
Totals	917,911	—	2,808	13,682	307	16,797	1,106	3,021	11,909	156	15,086	1,197	3,055	10,486	171	13,712

THE PAUPER ABSTRACT.

THE OUT-DOOR POOR OF THE STATE.
TABLE XVII. — PART I.
Out-Door Relief by the State in Certain Cities and Towns for 1881.

CITIES.	SICK STATE POOR.			TEMPORARY AID.		AGGREGATES.	
	Notices.	Persons.	Patients.	Notices.	Persons.	Notices.	Persons.
Fall River	113	464	126	106	459	219	923
New Bedford	40	104	39	9	23	49	127
Taunton	18	49	20	21	84	39	133
Gloucester	39	106	43	29	107	68	213
Haverhill	9	42	12	21	81	30	123
Lawrence	28	100	36	24	104	52	204
Lynn	21	60	24	31	107	52	167
Newburyport	13	37	13	11	34	24	71
Salem	40	101	41	27	129	67	230
Holyoke	70	204	84	11	46	81	250
Springfield	52	119	58	18	77	70	196
Cambridge	122	546	142	125	530	247	1,076
Lowell	27	74	34	64	303	91	377
Newton	16	74	20	25	130	41	204
Somerville	16	50	18	62	296	78	346
Boston	1,513	4,481	1,614	520	1,973	2,033	6,454
Chelsea	18	62	18	5	19	23	81
Fitchburg	4	15	4	—	—	4	15
Worcester	101	221	99	29	134	130	355
Totals	2,260	6,909	2,445	1,138	4,636	3,398	11,545

THE OUT-DOOR POOR OF THE STATE.

TABLE XVII. — PART II.

TOWNS.	SICK STATE POOR.			TEMPORARY AID.		AGGREGATES.	
	Notices.	Persons.	Patients.	Notices.	Persons.	Notices.	Persons.
North Adams	9	32	12	1	1	10	33
Pittsfield	4	26	5	4	21	8	47
Attleborough	20	78	38	7	19	27	97
Beverly	1	1	1	5	18	6	19
Peabody	13	42	15	-	-	13	42
Chicopee	9	25	11	25	90	34	115
Northampton	29	80	35	10	31	39	111
Malden	12	37	14	15	62	27	99
Marlborough	3	3	3	9	45	12	48
Natick	-	-	-	-	-	-	-
Waltham	2	12	2	3	18	5	30
Woburn	22	91	26	35	150	57	241
Brookline	2	7	4	7	39	9	46
Quincy	5	16	5	6	26	11	42
Weymouth	8	23	8	1	6	9	29
Brockton	7	14	8	7	27	14	41
Milford	4	9	5	4	14	8	23
Clinton	-	-	-	-	-	-	-
Town totals	150	496	192	139	567	289	1,063
City totals	2,260	6,909	2,445	1,138	4,636	3,398	11,545
Aggregate	2,410	7,405	2,637	1,277	5,203	3,687	12,608

THE PAUPER ABSTRACT.

TABLE XVIII. — Showing the Number and Residence of Persons receiving Out-Door Relief from the State for the Year ending Oct. 1, 1881, whether aided as Sick State Poor under the Act of 1865 or under the Temporary Aid Act of 1877.

I. THE SICK STATE POOR.

[This table shows the notices received from Overseers of the Poor by months and by counties, and also the total number of persons in the families of those receiving aid; the latter arranged by months, but not by counties. Of the 8,831 *persons* in this table, 3,079 were actually *patients* under treatment resident in 173 cities and towns, to whom, during the year, 6,511 visits were made by the Superintendent of Out-door Poor and his deputies.]

	1880.			1881.									Totals.
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	
Barnstable .	1	-	2	2	3	2	1	1	1	-	-	-	13
Berkshire .	2	6	1	4	4	1	5	15	4	2	1	4	49
Bristol .	16	6	20	72	19	15	7	12	15	6	8	8	204
Dukes .	-	-	-	-	-	-	-	-	-	-	-	-	-
Essex .	7	18	18	40	12	24	14	9	9	7	18	23	199
Franklin .	. .	2	1	5	-	1	1	2	-	-	-	1	20
Hampden .	. .	13	8	44	11	8	9	7	6	16	12	12	156
Hampshire .	. .	2	5	22	3	5	4	4	2	4	3	4	61
Middlesex .	. .	23	28	45	27	38	27	15	16	9	14	13	275
Nantucket .	. .	-	-	-	-	-	-	-	-	-	-	-	-
Norfolk .	. .	1	6	6	9	4	5	3	-	1	5	3	45
Plymouth .	. .	2	-	5	-	3	1	-	1	1	2	4	21
Suffolk .	. .	65	193	309	172	114	64	57	101	113	177	129	1,537
Worcester .	. .	25	19	38	23	21	20	12	10	15	10	19	220
Total notices .	121	163	301	592	283	236	158	137	165	174	250	220	2,800
Total persons .	375	514	1,097	2,101	1,179	709	518	495	476	372	519	476	8,831

THE OUT-DOOR POOR OF THE STATE.

II. PERSONS TEMPORARILY AIDED.

[Here the notices and persons are arranged as in the above table. To these 6,293 persons, resident in 124 cities and towns, 2,010 visits were made by the Superintendent of Out-door Poor and his deputies.]

	1880.			1881.									Totals.
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	
Barnstable .	-	1	7	5	-	1	-	-	2	-	-	-	16
Berkshire .	2	1	1	3	3	6	1	1	-	1	1	-	20
Bristol .	13	18	24	34	21	15	7	8	2	2	9	1	154
Dukes .	-	-	-	-	-	-	-	-	-	-	-	-	-
Essex .	8	18	32	51	19	17	1	2	3	6	8	13	178
Franklin .	-	1	-	-	1	-	1	-	-	-	-	-	3
Hampden .	7	5	5	10	5	8	2	4	12	2	4	4	68
Hampshire .	3	1	2	6	4	2	4	1	-	1	-	2	26
Middlesex .	19	21	68	95	66	41	21	12	8	7	10	9	377
Nantucket .	-	-	-	-	-	-	-	-	-	-	-	-	-
Norfolk .	3	3	6	7	7	5	4	3	-	2	1	1	42
Plymouth .	3	3	3	7	1	2	1	1	-	-	2	1	24
Suffolk .	19	27	136	135	95	22	13	12	21	10	23	13	526
Worcester .	9	18	24	30	14	9	7	9	7	3	7	6	143
Total notices .	86	117	308	383	236	128	62.	53	55	34	65	50	1,577
Total persons .	376	453	1,164	1,583	963	529	253	240.	183	134	214	201	6,293

THE PAUPER ABSTRACT.

REMARKS ON TABLES I. TO XIX.

TABLE I.

The First Table is made up from three sources,—(1) The annual returns made by the Overseers of the Poor for the year ending April 1, 1881; (2) The registers kept by the Inspector of Charities, which include the names and description of all persons *fully* supported by the cities and towns; and (3) the returns made at certain fixed dates by the Overseers of the Poor, which show the number of persons then receiving in-door and out-door relief in the cities and towns, whether at the expense of the municipalities or of the State. The State poor maintained in the State establishments are *not* included in this table. It is well to bear these remarks in mind when consulting the table.

The *average* number of city and town poor *fully* supported (the *in-door* poor, that is) is computed in the First Table from the Inspector's Registers, verified by the Overseers' annual return. The *average* number of the poor *relieved or partially supported* (the out-door poor, both of the State and of the cities and towns) is computed from the returns at fixed dates made by the Overseers, and is, to some extent, an estimate. Few towns, and no cities, give, or can easily give, such an average exactly; and even the number receiving out-door relief at any given time in a city or town is not always returned exactly, though the recent returns are much more accurate in this respect than those of former years. Generally speaking, the errors in one town or city will offset those in another; but it may safely be assumed that the average number, as given in the table, is commonly too large, rather than too small. The table also gives the *whole number of different persons* receiving support or relief during the year; but this number, for obvious reasons, is always too large when brought into an aggregate for the whole State. Many persons are counted twice, thrice, or even five times in such an aggregate, since they may have been and sometimes are, in the same year, (1) supported or relieved by more than one town and also by the State; (2) supported by the *same* town

REMARKS ON TABLES I. TO XIX.

(a) in its almshouse, (b) in some lunatic hospital, or (c) relieved by the same town more than once among the out-door poor; (3) duplicated by mere error in the count made by Overseers. From these and other causes of error in the old way of reporting pauperism in Massachusetts, it has been thought best to adopt the English method of counting at certain dates, which will hereafter be three in the year,—Jan. 1, when the poor are perhaps most numerous; July 1, when they are least numerous; and April 1, when the annual return closes. The Second Table, "Census of Pauperism," will show what has been the pauper population of Massachusetts at these dates during the two years ending July 1, 1881; and it may safely be said that *no more* than the numbers there given were supported and relieved at the times mentioned. The average of all the enumerations for the two years has been 24,190; while the average population of the State for the two years may be taken as 1,800,000. This would give an average of about one pauper to every 74 of the population. It may be noticed that pauperism had been steadily declining (allowance being made for the season of the year) from 1877 to 1881; though the accumulation of the *insane* poor has prevented this decline from showing itself very much in the class of in-door poor, which, with us, includes the insane poor in hospitals and asylums. Table II. also shows the number of the insane reported by the cities and towns at certain dates in 1880–81; and Table III. will give the distribution of such of these as were in almshouses in April, 1881. The insane supported by cities and towns in hospitals and asylums, with their assumed cost, are also reported in Table I.; but the cost there given is too low. It no doubt exceeded \$350,000 for the year ending April 1, 1881, and for the current year will reach \$400,000.

TABLES XV.—XIX.

In order to show the condition of pauperism in the principal cities and towns during the severe winter of 1880–81, we give two tables, XV. and XVI., made up from the official returns of the different classes of the poor, including the insane and vagrants, in the nineteen cities of Massachusetts,

THE PAUPER ABSTRACT.

and the eighteen towns containing a population of more than 8,000. This table covers three years, and is taken at the date (Jan. 1) when the number of the poor supported and relieved is nearly at its highest point. The population of these nineteen cities on the 1st of June, 1880, was 917,911; and of the eighteen towns, 189,013. The whole number of the poor fully supported was, in the cities, Jan. 1, 1881, 3,055; Jan. 1, 1880, 3,021; Jan. 1, 1879, 2,808,—showing an increase in the space of two years of 247, which is but little more than the increase of the insane poor in that period. In the eighteen towns the number fully supported Jan. 1, 1881, was 528; Jan. 1, 1880, was 541; and in 1879 it was 476. Here the increase has been 52 in two years, while the insane in these towns have not increased more than 20 or 30. The number of vagrants, on the contrary, somewhat decreased,—being, in the cities, Jan. 1, 1879, 307; Jan. 1, 1880, 156; and Jan. 1, 1881, 171. In the towns, at the corresponding dates, the number of vagrants lodged was 61, 50, and 11, respectively; so that, in all these cities and towns, on the 1st of January, 1881, there were fewer vagrants by 24 than in 1880, and by 186 than in 1879.

The number of persons partially supported had more decreased, both in the cities and the large towns. In the nineteen cities Jan. 1, 1879, 13,682 persons were returned as partially supported; a year later, 11,909; and on the 1st of January, 1881, only 10,486,—a decrease of 23 per cent in two years. In all these cities and towns the aggregate of the poor of all classes was 16,775 Jan. 1, 1881; 17,818 Jan. 1, 1880; and 20,329 Jan. 1, 1879,—the decrease in these aggregates during two years being 3,554, or 17 per cent. The present proportion of paupers to population would seem to be greater in these large towns than in the cities. In the two taken together, with a total population of 1,106,924, there is almost exactly one pauper to 66 inhabitants. If the paupers supported by the State in establishments, from these cities and towns, were added, it would bring up the proportion to something like one in 50 at the season of the year when the largest number of persons need public relief. Six months later, when the number needing relief was the smallest, the

PAUPERISM IN MASSACHUSETTS.

proportion of paupers to population did not exceed one in 90.

Taking now the returns from the whole State, Jan. 1, 1881, it appears that, in all but 17 towns, with a population of 33,543, the whole number of the poor of all classes was then 25,600, of whom 2,057 were reported insane. At the same date in 1880 the whole number reported was 26,769, and the number of insane was 1,928. In 285 towns, with a population of less than 8,000 each, and a total population of 632,218, the whole number of paupers reported was 8,744 on the 1st of January, 1881, or at the rate of one pauper in every 72 of the population. It thus appears that there are more paupers in proportion to population in the largest towns than in cities, and more in the cities than in the smallest towns. But if the State paupers in institutions were reckoned, most of whom came from the cities and large towns, it would be seen that the ratio of pauperism is greatest in the cities, next in the largest towns, and least in the smallest towns.

The 328 cities and towns which reported in January, 1881, showed a decrease of pauperism, in a single year, of not quite five per cent; in two years, of sixteen per cent; and in three years, of thirty-three per cent.

Since January, 1881, this decrease of pauperism has ceased in consequence of the great increase in the population of Massachusetts, although the number reported on the 1st of January, 1882, may not be greater than that in 1881, provided the winter should be mild instead of severe. It is not probable, however, that the number of paupers in Massachusetts will be smaller for years to come than it was in 1880 and 1881.

Table XVII. presents a view, for a single year, in the same cities and towns which appear in Tables XV. and XVI., of facts concerning the out-door poor of the State during the official year ending Oct. 1, 1881. The population of the cities and towns represented in this table was, in 1880, something more than 1,100,000, or a little less than three-fifths of the whole State; yet, as these tables show, they furnished last year about six-sevenths of the sick State poor in the whole Commonwealth, and more than four-fifths of all the persons

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receiving out-door relief from the State. The city of Boston alone furnished more than half of the sick State poor, and more than two-fifths of all the persons receiving out-door relief; yet the population of Boston is but little more than one-fifth of the whole population of Massachusetts. There is some duplication in this Table XVII., and also in Table XVIII. immediately following; that is to say, the persons enumerated in these tables of the out-door poor are not all different persons, but some of them appear more than once in the list. Probably the whole number of different persons in Table XVII., instead of being 12,608, falls rather short of 11,500; and the number of different persons in Table XVIII. (the aggregate of its two parts), instead of being 15,124, is less than 14,000. All the persons in these tables of the out-door poor should be enumerated, and no doubt are included, among the persons partially supported by cities and towns in Table I.

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Tables VIII.—XIV. inclusive are those which have been published, with slight changes, every year since 1864, to show the population and financial condition of the State establishments under the supervision of the Board of Health, Lunacy, and Charity. They are intended to present consecutively what cannot be given in a single table, — the main financial features at each establishment for the year, with some reference to the preceding year. These main features are, the number of inmates provided for; the valuation, real and personal, of the establishment in which they live; the receipts of each establishment, with the sources of income; the expenditures, ordinary and extraordinary, with an estimate of those which are properly *current* expense; the pecuniary standing of each establishment at the end of the year (Oct. 1); and, finally, the *per capita* cost in each of the main articles for which expense is incurred. This last table must not be regarded as giving a perfectly just comparison between the establishments; for many circumstances exist which variously affect this *per capita* cost of particular articles. In a general way, however, it shows the facts pretty

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clearly. The large *per capita* cost in some establishments is due almost wholly to the small number of their inmates during the year.

In considering Table VIII., which in some respects is new, the reader should bear in mind that the column marked "Whole Sum derived from the State Treasury," covers both special and current appropriations, while the next columns, "Net Cost to State," only give what the State has actually paid out (clear of all reimbursements and special loans) for *current* expenditure, and how much each State beneficiary has cost the State in the year.

The next column to the right, "Net Cost to the Public," is new, and is calculated as follows: The sums paid out at each establishment for current expense (excluding what may be construction expenses) are increased or diminished by the decrease or increase in value of the perishable personal property; and from the sum thus obtained are deducted all receipts from labor, from sales, etc., but not the sums collected for the board of inmates. This calculation is supposed to give very near the actual cost to the whole public of carrying on each establishment. This cost is, of course, much greater than the cost to the State, which only in part pays for the support of persons in these establishments; the cities and towns and private citizens paying the rest. But the cost to the public, calculated for any particular year, in the manner mentioned above, may not be exact, and will need to be revised after a period of years, especially if there has been any considerable rise or fall in prices. The particular sources of income for each establishment are given in Table XI., to which a column is this year added for the second time, headed "Other Receipts on Account of the Establishments," and containing the sums collected for board of inmates by the Superintendent of In-door Poor. These are unusually large in the lunatic hospitals and the State Almshouse on account of arrears of board which accumulated while the decision of the Supreme Court concerning the settlement of married women was pending. In this table of Receipts it is to be noticed that the total is somewhat swollen by sums received from loans, and by changes of investment

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in the funds of certain establishments. In the same way, in Table XII., the extraordinary expenditures include the repayment of loans, the re-investment of funds, payments into the State Treasury, and other nominal expenditures necessary to balance the account. In Table IX. the "Balance in Favor of the Establishments," at the lunatic hospitals, represents an amount not likely to be much increased or diminished in any one quarter; but the balances at the other establishments will be nearly or quite exhausted (except the invested funds) by the expenses incurred during the last quarter of the calendar year. It is, of course, to be remembered that the State appropriations are made for the *calendar* year; and these tables must necessarily, therefore, include parts of two yearly appropriations. At the State Almshouse there is a *deficiency* of some eight thousand dollars for the calendar year 1881.

REMARKS ON THE TABLES OF INSANITY.

Table XIX. gives at one view the main facts concerning insanity in Massachusetts as it comes under notice in the *six* State hospitals and asylums, the *three* municipal and corporate hospitals and asylums, and the *six* small licensed private asylums in Massachusetts. But, besides these *fifteen* public and private establishments exclusively used for the insane, there are more than 200 city and town almshouses, in any of which insane persons may be found, and in about 180 of which they are found; and there are also more than 20 prisons in which an occasional insane person may be found. It is estimated that, during the year covered by this table, the number of insane persons in the city and town almshouses or in private families, supported at public expense, has exceeded 700; and the number in prisons has exceeded 60. Many of these persons have also appeared in the hospitals and asylums during the year; but, excluding these, the number of the insane under public supervision, and not reckoned in Table XIX., must have exceeded 650. Therefore, the whole number of persons reported insane, who came under public supervision during the year, must have exceeded 5,000, of whom something more than 330 died, and about 300 recovered during the year, leaving, however, at the end of

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the year, more than 4,200 who must still have been insane ; and of these more than 3,900 were then in public and private establishments, or living in private families at the public expense. The number in private families living at private expense can only be estimated, but must be counted by hundreds. It will be observed that the number reported by the Overseers of the Poor, and entered in a previous table (Children and Insane Persons, pp. 31-38), is considerably less than those reported as maintained by cities and towns in Table XIX. This comes partly from the accidental omission by Overseers of insane persons who should have been counted, and partly from their excluding hospital patients, who, though nominally on the city and town list, are, in fact, paid for by their friends, by their own property, or by pensions, annuities, etc. The exact number of this class of patients cannot be given ; but it is between one and two hundred, no doubt, and would increase the whole aggregate of private patients remaining in hospitals and asylums Sept. 30, 1881, to nearly 700.

Yet, even with this addition, it will be seen by Tables VII. and XIX. that the pauper insane at that date were nearly *five times* as many as the self-supporting insane ; that is to say, nearly five-sixths of all the Massachusetts insane who come under public notice are paupers. An even greater disproportion exists between the curable and the practically incurable insane, — the former not exceeding 500 out of 3,900, and probably not exceeding 400, — so that from seven-eighths to nine-tenths of all our insane are practically incurable. By reference to the next table (XX.), it will be seen that the *new admissions* of insane patients in the chief hospitals last year amounted to 885, although less than 500 of these were apparently *new cases of insanity*. Now, as less than 700 patients died or recovered last year in all the establishments, while nearly 950 new admissions appeared, it would follow that the whole accumulation of insanity during the year must have been at least 250 persons. Table XIX. only shows an accumulation of 119 ; but the rest of the 200 and upward were, no doubt, absorbed in the community. A consideration of this process (in which the new

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admissions of each year exceed the aggregate of recoveries and deaths) will show why insanity increases and must increase in Massachusetts out of proportion to population.

This increase of the insane has not shown itself as yet in any great addition to the number of the insane poor in the city and town almshouses, who are still less than 600 in the almshouses of 180 cities and towns. The whole county of Suffolk, with a population of more than 400,000 at present, has no insane in its almshouses; and the rest of the State, with some 1,450,000 inhabitants, had but 585 when the almshouses were visited this year, as appears by the last column in Table III. The number of the insane reported in the other columns of this table is too small in most instances.

The new forms of statistical inquiry adopted by the Board at the suggestion of the Inspector of Charities in April, 1880, will in time bring out many valuable facts concerning this increase of insanity, its true character, and its causes. For the present year but few exact tabulations can be made from the statistics reported by the hospitals, because they are as yet necessarily imperfect, and cannot well be used in the aggregate. But the Tables XIX.-XXIII. give some interesting facts, thus grouped together, from the returns made by the larger hospitals and asylums, which alone have reported with reasonable fulness by the new method. It will be seen by Table XX., for example, that the 1,359 cases of insanity, which appeared as admissions at these hospitals and asylums, covered only 1,187 persons who came in from the general community, the rest being re-admissions of the same person, or transfers; that, of these 1,187 persons, only 497 were known cases of recent insanity; and that, among these, and perhaps 200 other recent cases left over from the preceding year, but little more than 280 recovered. The old cases of insanity added to those of unknown duration (mostly old cases also) make more than the number of recent cases. This is a discouraging circumstance, especially when it is remembered that most of the recoveries take place among recent cases; for it shows that the greater part of our Massachusetts insanity is practically incurable when it first enters our hospitals. It also appears that cities and large towns furnish

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much the largest portion of the insane; of 1,187 cases, 833, or about 70 per cent, coming from such places (of more than 10,000 inhabitants), and only 354, or 30 per cent, from small towns and rural districts. In fact, the city of Boston alone, with little more than a fifth part of the whole population of the State, last year furnished more than a third part of all the commitments of the insane.

Table VII. omits from consideration the patients in private asylums (who are still very few, and from 1864 to 1874 were less than half as many), but gives the yearly increasing number in the public establishments for the insane, classified according to their means of support. By this table it appears, first, that the insane in these establishments have more than doubled since the close of the civil war; and, second, that the private or self-supported patients *reported* were then nearly one in *three* of the whole number, and are now less than one in *six*. The actual number of self-supported patients is greater than here reported; but exactly how much greater is not known: it doubtless exceeds 650, and may reach 700. In regard to the hospital residence of the patients in the State Hospitals, Table XXI. will furnish some information. The two asylums excluded from this table (at Worcester and Tewksbury) would show a much longer hospital residence for their inmates than the average given in the table, if the whole period of hospital life could be reckoned. And it is to be noticed that the average in the table is less than it is in fact, because only the time spent in each particular hospital since the patient's last admission is reckoned.

Table XXII. shows the relative frequency of the different forms of insanity in our hospitals, and also, in a general way, the probabilities of a favorable or a fatal result in each form of the disease. It will be seen that the most frequent forms of insanity are *mania* (acute and chronic), *melancholia*, and *dementia*; the two former showing many recoveries, the latter very few. General paralysis shows the larger proportion of deaths to the number of cases: indeed, all general paralytics die, or nearly all. Recoveries are most frequent in cases of acute mania and melancholia; in puerperal mania nearly all recover, and so, too, in alcoholic insanity. In

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chronic mania and in dementia, including senile dementia, no recoveries are reported.

The admissions of epileptics being 54, there are 27 deaths, and only 1 recovery; in general paralysis, with only 79 admissions, there were 57 deaths, most of them occurring in cases not admitted during the year. Epilepsy, as seen in the hospitals, would seem to be scarcely more curable than general paralysis or senile dementia. Cases of acute mania, of which nearly two-thirds recover, are becoming less frequent, though still very common. It is the opinion of some of the hospital superintendents that a decided change has been taking place in the form of disease called mania, cases of extreme violence being less frequent, and cases of a milder type being more common; but that this change, though in some respects favorable for treatment, is unfavorable in regard to recoveries.

It will be understood that the three classes of cases mentioned in Table XXII. are not in all respects distinct, but that many of the cases recovered are also included among admissions, and that some of the persons who died are also included among admissions. This fact swells the aggregate in the last column considerably above the number of *persons* to whom the table applies; but the nature of the facts shown is such that no serious error will arise from this source. It may be observed that very few of the epileptics or general paralytics who died are included among the admissions of the year. The whole number of recoveries and deaths noted in this table is less than in Table XIX., because Table XXII. omits the asylums at Worcester and Tewksbury, the Ipswich Receptacle, and all the private asylums. The great bulk of admissions, however, in the whole State, are made to the hospitals included in Table XXII.; namely, 1,284 cases admitted, out of the 1,445 which are included in Table XIX.

These 1,445 cases are divided, with respect to sex, as follows: 720 men and 725 women, which would seem to show that a preponderance of women appears among the commitments as it does among the whole number remaining in the hospitals and asylums. But, in fact, the *new cases* of insanity do not show a great excess of women: for, among the 885

REMARKS ON THE TABLES OF INSANITY.

first admissions to the hospitals and asylums given in Table XX., 440 appear to be men, and 445 women; which is the less remarkable because there is an excess of women over men in the population of the State, as there is also among the chronic insane. The accumulation of women among the latter class seems due to the fact that they recover less frequently, and do not die so fast, as the male patients do. This cannot be shown exactly by our present statistics; but apparently it is the case. The total number of persons in all the hospitals and asylums during the year is somewhat overstated in Table XIX., because all the duplicates cannot be excluded without great labor, for which reason also the division of the sexes under this head is not quite exact; but, because the great majority of these persons belong to the chronic insane, there are certainly more women than men among them.

Assuming 4,350 as this total number of persons, 2,063 were men, and 2,287 were women. But, of this total number of *different persons* appearing in our Massachusetts hospitals and asylums (4,350), 110 were residents of other States.

Table XXIII. is new, and intended to show historically—that is, with reference to the commitments of former years—the transactions of the four State Hospitals since 1858, the year in which the Northampton Hospital opened. Commitments of previous years at Worcester and Taunton are therefore treated as if committed in 1858; but, in fact, the 50 patients entered in the table for 1858, and many of those at Northampton in the ten years following, had been in the State Hospitals from five to ten years at least. It appears that, while nearly one-third of the present patients were admitted in 1881, 66 patients had been in hospitals twenty years, and 155 others had been where they now are for more than ten years. The table shows no instance of recovery after ten years' residence, and few after two years. The first two years the reported recoveries outnumber the deaths; later the deaths predominate.

INSANITY IN PUBLIC AND PRIVATE HOSPITALS AND ASYLUMS.

TABLE XIX. — *Admissions, Discharges, etc., at Establishments for the Insane for the Year ending Sept. 30, 1881.*

1879-80.	State Hospital, Worcester.	Worcester Asylum.	State Hospital, Taunton.	State Hospital, Northampton.	State Hospital, Danvers.	Tewksbury Asylum.	McLean Asylum, Somerville.	Boston Lunatic Hospital.	County Receptacle, Ipswich.	Herbert Hall, Worcester.	Shady Lawn, Northampton.	Lycophanthic Retreat, Roxbury.	Family Home, Winchendon.	Cutler Retreat, Pepperell.	Brookline.	Total in the State.
Remaining Sept. 30, 1880	553	573	556	446	607	223	163	162	61	16	12	3	4	5	4	3,108
Males	233	182	285	223	301	46	69	85	42	-	8	-	2	2	1	1,479
Females	300	191	271	223	306	177	94	77	19	16	4	3	2	3	3	1,689
Since admitted; viz.	249	28	272	123	497	85	59	84	4	14	13	1	10	-	6	1,445
Males	145	10	152	57	226	49	27	32	3	2	8	-	7	-	2	720
Females	104	18	120	66	271	36	32	52	1	12	5	1	3	-	4	725
Cases within the year .	782	401	828	569	1,104	308	222	246	65	30	25	4	14	5	10	4,613
Persons within the year .	770	401	813	561	1,088	305	219	244	65	30	25	4	14	5	10	4,550
Males	372	192	426	278	521	93	95	116	45	2	13	-	9	2	3	2,063
Females	398	209	387	283	567	212	124	128	20	28	12	4	5	3	7	2,287
Residents of other States .	20	1	-	10	14	-	46	-	1	3	13	-	5	-	2	110
Average number . . .	570.2	362.1	563.8	452	614.5	233.6	158.1	161	58	16.5	12	3	9	5	4	3,223
Discharges; viz. . . .	197	34	280	106	478	47	69	68	7	15	7	2	6	2	5	1,323
Recovered	54	-	57	20	124	-	18	19	2	3	2	-	5	1	2	507
Improved	64	7	86	43	111	-	22	7	1	7	6	1	-	-	1	356
Not improved	32*	3	83†	17†	149	41	16	21	-	2	2	-	-	-	-	366
Died	47	24	54	26	94	6	13	21	4	3	-	1	1	1	2	297

* Includes 3 absent by elopement.

† Includes 1 not improved.

INSANITY IN PUBLIC AND PRIVATE HOSPITALS.

TABLE XIX. — *Concluded.*

1880-81.	State Hospital, Worcester.	Worcester Asylum.	State Hospital, Taunton.	State Hospital, Northampton.	State Hospital, Danvers.	Tewksbury Asylum.	McLean Asylum, Somerville.	Boston Lunatic Hospital.	County Recep- tacle, Ipswich.	Herbert Hall, Worcester.	Shady Lawn, Northampton.	Psychopathic Re- treat, Roxbury.	Family Home, Winchendon.	Cutter Retreat, Pepperell.	Brookline.	Total in the State
Remaining Sept. 30, 1881	585	367	548	463	626	261	153	178	58	15	15	2	8	3	5	3,987
Males	269	168	270	229	256	72	66	85	40	—	10	2	5	1	1	1,512
Females	316	199	278	234	330	189	87	93	18	15	5	2	3	2	4	1,775
Supported by State	114	45	81	176	112	227	—	—	—	—	—	—	—	—	—	805
by towns	363	272	411	229	432	34	—	154	46	—	—	—	—	—	—	1,941
by individuals	108	—	56	58	82	—	153	24	12	15	15	2	8	3	3	541
Residents of other States	14	—	—	9	5*	—	35	—	1	6	8	1	3	—	—	81
Whole number of admissions	249	28	272	123	497	85	59	84	4	14	13	1	10	—	6	1,445
Supported by State	83	8	89	40	192	59	—	13	—	—	—	—	—	—	—	517
by towns	116	20	174	64	251	—	—	65	2	—	—	—	—	—	—	697
by individuals	38	—	9	19	31	—	59	6	2	14	13	1	10	—	6	231
First hospital admission	162	2	183	88	381	—	38	60	3	11	9	1	6	—	4	949
Former inmates; viz.	—	26	89	35	116	—	21	24	1	3	4	—	4	—	2	496
of this hospital	—	—	71	26	50	—	13	9	1	2	—	—	2	—	—	216
of other hospitals in State	—	26	18	8	41	—	7	14	—	2	2	—	1	—	—	246
of hospitals out of State	—	—	—	1	25	—	1	1	—	1	2	—	1	—	—	34

* Assumed from the register.

NOTE. — This table should be taken in connection with the remarks on a preceding page. The numbers here reported are correct, except when a few patients temporarily absent are counted in the hospital or asylum; but the classification with respect to support is never quite correct as reported by the hospitals, and, in fact, is constantly changing, as pauper "settlements" and "kindred of ability" are found by the State and town authorities. "Residents in other States" are persons whose domicile is outside of Massachusetts; and this total (110), when deducted from the whole number of persons, leaves 4,240, to which should be added at least 30 insane persons belonging in Massachusetts, but resident at hospitals and asylums in other States. The whole number of Massachusetts insane coming under official notice in the past year, in hospitals and asylums, would thus become about 4,270. To this should be added about 650 insane persons supported at the public expense in city and town almshouses, in prisons, and in private families.

APPENDIX.

TABLE XX. — *Cases of Insanity and Persons Insane at the Chief Hospitals and Asylums in the State, 1880-81.*

	Worcester Hospital.	Worcester Asylum.	Taunton Hospital.	Northampton Hospital.	Danvers Hospital.	Tewksbury Asylum.	McLean Asylum.	Boston Lunatic Hospital.	Totals.
<i>Cases admitted within the year</i> . . .	249	28	272	123	497	85	51	54	1,359
Recent — insane less than one year	106	2	147	42	236	—	28	27	588
Chronic — insane one year or more	100	15	101	53	201	84	23	25	602
Of unknown duration	43	11	24	28	60	1	—	2	169
<i>Persons admitted within the year</i> . . .	241	28	267	120	488	83	51	54	1,267
Recent cases of insanity	99	2	145	40	236	—	28	27	550
Chronic cases	99	21	98	52	192	82	23	25	554
Unknown	43	5	24	28	60	1	—	2	163
<i>New cases — Persons first admitted to any hospital</i> . . .	162	2	183	88	381	1	30	38	885
Recent insanity	83	2	114	39	210	—	22	27	497
Chronic insanity	47	—	40	28	123	—	8	9	261
Unknown	32	—	23	21	48	1	—	2	127
<i>Persons re-admitted to some hospital</i> . . .	79	26	84	32	107	82	21	16	447
transferred from other hospitals	35	26	—	—	4	80	—	—	145
admitted from the general community	206	2	267	120	484	3	51	54	1,187
viz., from cities and large towns	86	2	188	62	394	2	51*	48	833
from rural districts	120	—	79	58	90	1	—	6†	351
Whole No. of cases in hospital within the year,	782	401	828	569	1,104	308	202	226	4,420
No. of persons in hosp'l within the year,	770	401	813	561	1,088	305	202	226	4,226
Recoveries within the year	54	—	57	20	124	—	12	16	283
Deaths within the year	47	24	54	26	94	6	6	25	282

* Assumed as probable, but not stated.

† Includes five unknown.

NOTE. — The figures for McLean Asylum cover the year ending Dec. 31, 1880, and for Boston Hospital the year ending April 30, 1881; the State Hospitals the official year.

RECOVERIES AND DEATHS IN HOSPITALS.

TABLE XXI. — *Recoveries and Deaths in Six Hospitals of the State for the Last Official Year.*

	Worcester Hospital.	Taunton Hospital.	Northampton Hospital.	Danvers Hospital.	McLean Asylum.	Boston Lunatic Hospital.	Aggregate.
Average hospital residence (in months), —							
of cases recovered in 1880-81 . . .	5.9	22	11.05	6.9	21.25	21.5	11.48
of cases died in 1880-81 . . .	26.5	40.3	64.	9.3	32.46	128.	35.13
of cases remaining at end of official year	47 86	56.62	77.64	16.32	*	102.39	50.88
Reported recoveries in 1880-81 . . .	54	57	20	124	12	16	283
viz., on first admissions . . .	38	24	20	119	10	14	225
on second admissions . . .	8	14	—	5	1	—	28
on third admissions . . .	1	5	—	—	—	—	6
on fourth or subsequent admissions, . . .	7	14	—	—	1	2	24
Number of deaths in 1880-81 . . .	47	54	26	94	6	25	252
viz., on first admissions . . .	33	46	21	89	4	22	215
on second admissions . . .	12	8	5	5	2	2	34
on third admissions . . .	2	—	—	—	—	1	3

* Data are wanting for computation.

NOTE. — This table shows that about 11 per cent of the recoveries take place upon re-admissions, the previous admission having often ended in recovery. On the other hand, out of 252 deaths, 37, or nearly one-seventh, followed re-admissions, many of whom had previously recovered. But, as the re-admissions were only to one particular hospital, this table understates the recurrence of insanity. The copious statistics of the Worcester Hospital are very full and valuable in this respect, showing how often a patient was admitted and re-admitted, and with what result. It appears, for example, that, since 1833, 1,106 persons (537 men, 569 women) have been admitted to the Worcester Hospital 3,200 times, or nearly *three* admissions to each person. The 537 men were *re-admitted* 1,555 times, and the 569 women 1,493 times. Following these re-admissions, 2,235 recoveries occurred in the hospital, while 197 died and 55 remained Oct. 1, 1881. Of all the recoveries at this hospital (4,689), 2,320 were of men, 2,369 of women; while of the deaths (1,758), 940 were of men, and only 818 of women. Of the persons admitted (9,450), 4,795 were men, 4,655 women. Attention is called to the fact that the *deaths* following first admissions (126) are more numerous than the *recoveries* following first admissions (106) in all these hospitals, except that in Danvers, — showing that the chance of recovery in these hospitals, for a patient when first admitted, is less than the chance of death.

APPENDIX.

TABLE XXII. — *Forms of Insanity in Six Hospitals of the State in Cases Admitted, Recovered, or Died, within the Last Official Year.*

FORMS OF DISEASE.	WORCESTER HOSPITAL.			TANTON HOSPITAL.			NORTHAMPTON HOSPITAL.			DANVERS HOSPITAL.			MCLEAN ASYLUM.			BOSTON LUNATIC HOSPITAL.			TOTALS.			Aggregate.
	Cases Admitted.	Cases Recovered.	Persons Died.	Cases Admitted.	Cases Recovered.	Persons Died.	Cases Admitted.	Cases Recovered.	Persons Died.	Cases Admitted.	Cases Recovered.	Persons Died.	Cases Admitted.	Cases Recovered.	Persons Died.	Cases Admitted.	Cases Recovered.	Persons Died.	Cases Admitted.	Cases Recovered.	Persons Died.	
Mania, acute	63	22	4	73	38	6	40	18	—	104	45	9	11	6	—	11	6	—	302	135	23	460
chronic	78	3	7	66	3	12	25	1	6	87	2	5	15	4	—	6	2	7	277	15	39	331
recurrent	8	—	—	—	—	—	—	—	—	3	15	—	—	—	—	1	1	—	12	24	—	36
puerperal	6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	8	1	—	9
Melancholia, acute	22	7	3	53	16	2	28	1	4	71	26	7	17	1	2	10	3	—	201	54	18	273
chronic	5	1	6	—	—	—	—	—	—	29	3	6	2	1	—	2	3	—	38	5	13	56
Dementia, acute	1	—	—	—	—	—	2	—	—	20	—	1	—	—	—	2	—	—	25	3	1	29
chronic	17	—	8	46	—	16	21	—	7	47	—	8	2	—	2	2	—	4	135	—	45	180
senile	10	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43	—	—	67
Epilepsy	14	1	8	14	—	7	4	—	5	15	—	6	—	—	—	3	—	1	54	1	27	82
General paralysis	13	7	9	8	—	8	2	—	4	46	1	28	4	—	—	6	—	8	79	1	57	137
Alcoholic insanity	6	1	1	—	—	—	—	—	—	23	32	—	—	—	—	—	—	—	29	39	—	68
Dipsomania	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	1	—	2	2	1	5
Disease of brain, organic	—	—	—	10	—	3	—	—	—	—	—	—	—	—	—	—	—	—	10	—	3	13
Idiocy and imbecility	2	—	—	2	—	—	—	—	—	17	—	—	—	—	—	1	—	—	22	—	—	22
Moral insanity	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	3	1	8
Not insane	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—	—	—	5	—	—	5
Total of cases	249	54	47	272	57	54	123	20	26	497	124	94	51	12	6	54	16	25	1,246	283	252	1,781

NOTE. — In the above Table XXII., cases of paretic and epileptic mania or dementia are included in "General paralysis" and "Epilepsy;" "Moral" insanity covers one case of "delusional" insanity; "Alcoholic insanity" includes cases of delirium tremens; and *sub-acute* cases are here classed with *acute*. Recurrent cases probably occur in all the hospitals, but are not always distinguished in the reports; nor is the distinction always made between acute and chronic melancholia and dementia. This table also shows the form of insanity accompanying recovery or death in the cases found in Table XXI.

THE STATE LUNATIC HOSPITALS.

TABLE XXIII.—*Cases of Previous Years, Recovered or Died within the Official Year, or Remaining Sept. 30, 1881, at Four State Hospitals.*
THE STATE HOSPITALS—HISTORICAL VIEW FOR 1881.

REMAINING OF THOSE COMMITTED OFFICIAL YEARS ENDING OCT. 1.	WORCESTER HOSPITAL.				TAUNTON HOSPITAL.				NORTHAMPTON HOSP.				DANVERS HOSPITAL.				TOTAL.				Whole No. of Com- mitments each Year
	Whole No.	Recovered.	Died.	Remaining.	Whole No.	Recovered.	Died.	Remaining.	Whole No.	Recovered.	Died.	Remaining.	Whole No.	Recovered.	Died.	Otherwise Discharged.	Remaining.				
1858	8	—	—	8	23	—	3	18	19	—	1	18	—	—	4	2	44	50	758		
1859	1	—	—	1	2	—	—	2	5	—	—	4	—	—	—	1	7	8	524		
1860	—	—	—	—	2	—	—	2	6	—	—	6	—	—	—	—	8	8	627		
1861	1	—	—	1	2	—	—	3	4	—	—	4	—	—	—	—	7	7	625		
1862	1	—	—	1	3	—	—	3	4	—	—	3	—	—	—	—	7	8	541		
1863	1	—	—	1	2	—	—	2	7	—	—	7	—	—	—	—	9	10	548		
1864	2	—	—	2	3	—	—	3	3	—	—	3	—	—	—	—	7	7	522		
1865	1	—	—	1	3	—	—	3	5	—	—	5	—	—	—	—	9	9	508		
1866	1	—	—	1	6	—	—	5	9	—	—	8	—	—	—	—	13	15	601		
1867	7	—	—	7	4	—	—	5	6	—	—	7	—	—	—	—	10	19	670		
1868	8	—	—	8	6	—	—	6	14	—	—	13	—	—	—	—	19	26	702		
1869	3	—	—	3	6	—	—	5	11	—	—	10	—	—	—	—	28	36	736		
1870	9	—	—	9	5	—	—	5	24	—	—	24	—	—	—	—	38	43	903		
1871	8	—	—	8	13	—	—	10	22	—	—	20	—	—	—	—	51	51	941		
1872	14	—	—	14	14	—	—	12	23	—	—	22	—	—	—	—	74	74	974		
1873	21	—	—	20	22	—	—	20	31	—	—	30	—	—	—	—	97	97	88		
1874	28	—	—	26	31	—	—	26	38	—	—	36	—	—	—	—	115	115	999		
1875	49	—	—	42	29	—	—	22	37	—	—	35	—	—	—	—	138	138	1,030		
1876	68	—	—	59	76	—	—	7	53	—	—	46	—	—	—	—	198	198	999		
1877	90	—	—	74	115	—	—	7	81	—	—	19	—	—	—	—	307	307	1,127		
1878	56	1	7	42	63	2	3	49	25	1	1	23	202	4	33	55	348	679	1,079		
1879	157	18	8	105	122	19	12	56	66	6	4	35	334	51	44	168	1,134	1,134	1,077		
1880	249	34	12	158	272	34	16	137	122	9	5	83	491	67	80	256	1,110	1,110	1,110		
Total cases	782	54	47	588	828	57	54	548	569	20	26	463	1,104	124	94	582	2,225	3,283	—		
Total persons	770	—	—	—	813	—	—	—	561	—	—	—	1,088	—	—	—	2,225	3,201	—		

NOTE.—The discrimination between *cases* and *persons* must be noted in this table. The difference between the cases (3,283) and the persons remaining (2,225) is occasioned by the discharge of 582 cases otherwise than by recovery or death.

APPENDIX.

STATE AND LOCAL REFORMATORIES.

TABLE XXIV. — *Population and Expenses of Reformatory and Charitable Schools for the Year ending Sept. 30, 1881.*

	STATE SCHOOLS.				CITY REFORM AND CHARITABLE SCHLS.						TRUANT SCHOOLS.						Total.
	Westborough.	Lancaster.	Monson.	Idiot School.	BOSTON.			Lawrence.	Salem.	Lowell.	Boston.	Cambridge.	Fall River.	New Bedford.	Worcester.	Hamptden Coun-ty, Springfield.	
					House of Reformation.	Marcella-st. Home.											
Remaining Oct. 1, 1880	194	71	380	120	133	205	28	27	26		42	27	7	14	4	12	1,290
Boys	194	71	274	67	111	205	27	27	26		42	25	7	14	4	11	1,034
Girls	—	—	106	53	22	—	1	—	—		—	2	—	—	—	1	256
Admissions during the year	144	55	215	36	66	149	58	16	15		136	29	9	16	4	10	958
Apparent number within the year	338	126	595	156	199	354	86	43	41		178	56	16	30	8	22	2,248
Real number within the year	293	108	549	156	194	343	86	43	41		176	56	16	30	8	22	2,121
Average number for the year	179.2	62.7	366.9	117	129.7	234.4	33	29	29.5		62.2	32	8	16	3	14	1,317
Remaining Sept. 30, 1881.	142	55	380	130	123	268	41	30	33		131	32	9	18	—	14	1,406
Boys	142	—	280	79	104	268	38	30	33		131	28	9	18	—	13	1,173
Girls	—	55	100	51	19	—	3	—	—		—	4	—	—	—	1	233
Current expenses	\$41,676	\$15,425	\$50,336	\$19,770	\$18,536	\$29,118	\$2,475	\$5,550*	\$5,108		\$13,896	\$3,416	\$1,000*	\$1,500	\$702	\$2000*	\$210,208
Net expenses	31,200	13,500	43,900	18,500	13,759	29,118	1,875	3,500*	3,597		13,836	3,416	1,000*	1,500	702	1,600*	179,263

* Estimated.

REFORMATORY AND CHARITABLE SCHOOLS.

TABLE XXV. — *Net Expenses of Reformatory and Charitable Schools for Twenty-eight Years.*

YEARS.	WESTBOROUGH AND NAUTICAL SCHOOLS.		LANCASTER.		MONSON.		BOSTON HOUSE OF REFORMATION.	
	Expenses.	Av. No.	Expenses.	Av. No.	Expenses.	Av. No.	Expenses.	Av. No.
1854,	\$38,898	472.	—	—	—	—	\$5,000*	77.
1855,	44,121	562.	—	—	—	—	9,700*	87.
1856,	42,896	568.8	—	—	—	—	19,400*	141.
1857,	48,921	580.5	\$15,923	56.	—	—	19,300*	155.
1858,	47,578	589.8	12,860	94.	—	—	20,000*	180.
1859,	44,405	558.7	12,312	98.	—	—	24,000*	210.
1860,	59,919	493.4	13,872	114.	—	—	25,000*	217.
1861,	59,758	373.5	12,971	126.	—	—	23,000*	214.
1862,	55,512	403.7	15,542	140.	—	—	30,000*	225.
1863,	64,004	473.7	18,133	137.	—	—	30,000*	198.
1864,	87,125	472.6	17,371	140.	—	—	32,000*	200.
1865,	86,199	485.6	20,976	140.	—	—	27,000*	213.2
1866,	93,365	543.5	24,753	144.	—	—	40,740	207.
1867,	107,341	611.	24,267	141.	\$44,000	409.5	30,127	179.
1868,	98,433	598.5	20,435	138.	40,775	413.4	32,515	224.
1869,	97,189	571.	23,307	140.	33,752	357.	35,131	304.
1870,	88,379	502.1	23,622	145.	34,878	318.3	31,275	276.
1871,	68,995	457.	20,350	138.	41,344	335.8	33,621	294.
1872,	58,777	347.	21,535	121.5	40,372	361.	43,579	311.
1873,	42,095	289.5	22,148	121.	40,460	368.4	48,542	304.
1874,	39,980	327.7	20,506	93.3	37,118	407.	68,772	321.4
1875,	40,811	335.7	24,636	84.7	38,450	428.9	42,623	291.
1876,	45,356	348.5	25,683	121.8	38,450	435.2	32,840	308.
1877,	55,609	327.	25,980	121.3	37,030	438.	35,936	321.8
1878,	56,931	316.2	21,500	98.8	44,750	457.1	29,356	212.9
1879,	46,574	258.3	18,227	73.2	44,460	449.5	18,785	190.9
1880,	40,300	206.7	16,000	76.2	43,200	404.3	18,243	139.8
1881,	31,200	179.2	13,500	62.7	43,900	366.9	13,759	129.7

Local Reformatories† and Truant Schools.‡ — Aggregate.

YEARS.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.
Expenses,	\$17,456	\$23,339	\$28,638	\$26,182	\$61,093	\$59,432	\$56,072	\$60,204
Av. No. .	107.	149.	186.	197.5	456.6	513.1	603.7	461.1

NOTE. — Westborough includes the Nautical School from 1859 to 1872 inclusive.

* Approximate.

† The Lowell Reform School and the Plummer Farm School at Salem for eight years, and the Lawrence Industrial School for seven.

‡ Truant Schools at Cambridge and Worcester for eight years, at Springfield for six, at Boston for four, at Fall River for two; also the Marcella-street Home, Boston, from 1873, and New Bedford for 1881.

APPENDIX.

REMARKS ON REFORMATORY AND CHARITABLE SCHOOLS.

Tables XXIV. and XXV. show the population and expenses, for the year just closed, of fifteen schools maintained by the State, the cities, and one county, for the instruction, discipline, and reformation of poor and vicious children. For convenience, institutions very unlike each other are brought together; but their inmates all belong to the dependent and delinquent classes. The State Primary School is here considered as a school simply, only those persons being entered who have been admitted to the school by vote of the State Board; so that the number is less than in preceding tables, where all the residents at the Monson establishment are reckoned in. The most striking fact shown by this table last year was the large decrease of these dependent children during 1880, when, beginning with 1,516 children, the number diminished during the year to 1,264,—a decrease of nearly 17 per cent. This year the tide has turned, and the table shows an increase to 1,406, Oct. 1, 1881. Special causes still exist for a large decrease in special schools. Besides, the general fact is, that children are taken care of at home, or find employment, to such an extent that they no longer come upon the public for support and restraint so much as formerly. It is probable, also, that private charities do more than formerly for this class of children. There is an increase in the Idiot School and the Marcella-street Home. But in the State Reformatories the decrease during the year has been from 265 to 197,—more than 25 per cent,—while from 1867 to 1881 the decrease in the average number and cost at the State Reformatories has been from 752 and \$131,608, in 1867, to 242 and less than \$55,000.

The net cost of maintaining, instructing, and employing an average of 1,317 children, has been \$179,263 in the past year, or an average weekly cost of about \$2.62 for each child. At the State Schools this cost is higher, rising at Westborough to \$3.50, and at Lancaster to about \$4, but falling at Monson to something like \$2.25.

The smallest *per capita* expenditure in any of these schools appears once more in the Lowell Reform School, where

CHILDREN IN REFORMATORIES, ETC.

the cost is reduced by its connection with an almshouse, which is not desirable. The Plummer Farm School at Salem, and several others, show a net cost of but little more than \$2 a week, although the average number of their pupils is but about 30: this is because the earnings of these schools from farm and garden work, and other labor, are so considerable.

It will be noticed that in all these schools the number of girls is only about one-sixth of the whole number (on the 1st of October, 1881),—less than 240 girls out of a total of 1,406 pupils. In the State Primary and Reform Schools the proportion is somewhat greater; viz., 155 girls out of 577 pupils in all; and in the Idiot School, at South Boston, nearly two-fifths of the pupils are girls. The number of girls placed out and remaining in families Oct. 1, 1881, also show a greater proportion; from the State Primary School, 193 boys, 121 girls; from the two State Reformatories, 267 boys and 97 girls; and from children in the custody of the Board, 143 boys and 39 girls. In all, 860 children,—603 boys and 257 girls,—who had been placed out by the State, remained in families Oct. 1, 1881.* The number of children similarly placed out from the local schools is not reported; but it is not very large. The children in city and town almshouses are decreasing in number in consequence of Acts of 1879, chap. 103. In three cities—Salem, Springfield, and Worcester—scarcely any children to whom this statute applies are now in the almshouses; in other cities little has been done to enforce the law. In Newburyport, which has the oldest almshouse in the State (built in 1794–95, and used constantly ever since), and one of the most defective in construction, though well managed, ten or twelve children reside who attend the public schools of the city. The truant schools in the city almshouses sometimes contain pauper children also.

* Exclusive of children for whom board is paid.

APPENDIX.

TABLE XXVI. — CHILDREN SUBJECT TO VISITATION, 1880-81.

1. Subject to Visitation Oct. 1, 1880.

ESTABLISHMENTS.	Boys.	Girls.	Total.
From the State Reform School . . .	272	—	272
State Industrial School . . .	—	82	82
State Primary School . . .	195	114	309
State Board of Health . . .	—	—	—
Lunacy and Charity . . .	199	62	261
State Almshouse . . .	5	5	10
Town Almshouse . . .	1	2	3
Total	672	265	937

2. Placed out during the Year ending Oct. 1, 1881.

From the State Reform School . . .	121*	—	121
State Industrial School . . .	—	65	65
State Primary School . . .	95	48	143†
State Board of Health . . .	—	—	—
Lunacy and Charity . . .	60	15	75
State almshouse . . .	—	—	—
Town Almshouse . . .	—	2	2
Total	276	131	407†

3. Aggregate of Children.

From the State Reform School . . .	393	—	393
State Industrial School . . .	—	147	147†
State Primary School . . .	290§	162§	452†
State Board of Health . . .	—	—	—
Lunacy and Charity . . .	259	77	336
State Almshouse . . .	5	6	11
Town Almshouse . . .	1	4	5
Total	948	395	1,343†

4. Subject to Visitation Oct. 1, 1881.

From the State Reform School . . .	277	—	277
State Industrial School . . .	—	102	102
State Primary School . . .	200	121	321
State Board of Health . . .	—	—	—
Lunacy and Charity . . .	226	59	285
State Almshouse . . .	3	5	8
Town Almshouses . . .	—	3	3
Total	706	290	996

* Including two elopers.

† Including 4 boys and 8 girls boarded out.

‡ Actual number, 140.

§ Actual number, 266 boys, 153 girls = 419.

NOTE. — The 1,344 cases in the "aggregate of children" include 41 duplicates, leaving 1,303 as the actual number of children.

LOCATION AND CONDITION OF CHILDREN.

TABLE XXVII. — *Location or Condition of Children visited 1881.*

	Whole Number.	State Reform School.	State Industrial School.	STATE PRIMARY SCHOOL.		BOARD CHILDREN.		STATE ALMSHOUSE.		TOWN ALMSHOUSE.	
				Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
In place.	486	31	71	182	108	49	31	3	5	-	3
With friends, conduct good.	354	219	24	9	7	87	8	-	-	-	-
With friends, conduct not good.	23	14	2	2	6	7	-	-	-	-	-
In place at board.	8	-	-	-	-	-	-	-	-	-	-
In State Primary School.	83	-	-	-	-	66	17	-	-	-	-
In confinement.	9	6	3	-	-	-	-	-	-	-	-
Run away.	33	4	2	7	-	17	3	-	-	-	-
Number subject to visitation Oct. 1, 1881.	996	277	102	200	121	226	59	3	5	-	3
Died.	3	1	1	-	1	-	-	-	-	-	-
Married.	16	4	11	-	4	-	-	-	-	-	-
Discharged.	46	-	-	5	4	28	9	-	-	-	-
Returned.	117	29	21	44	18	-	-	1	-	-	1
Returned from boarding out.	3	-	-	1	2	-	-	-	-	-	-
Became of age.	18	6	9	1	5	-	2	-	1	-	-
Expiration of indenture.	17	-	-	11	-	-	-	-	-	-	-
Left the State.	19	19	-	-	-	-	-	-	-	-	-
United States service.	2	2	-	-	-	-	-	-	-	-	-
Transferred to State Reform School.	5	-	-	-	-	5	-	-	-	-	-
Transferred to State Industrial School.	7	-	-	-	-	-	-	-	-	-	-
Cannot be benefited by further visitation.	95	55	-	28	10	-	-	1	-	1	-
Total boys.	918	393	-	290	-	259	-	5	-	1	-
Total girls.	396	-	147	-	162	-	77	-	6	-	4
Aggregate.	1,314*	393	147	452		336		11		5	

* Real number of different children, 1,303.

IMMIGRATION STATISTICS.

• TABLE No. XXIX. — IMMIGRATION, 1848-81.
Showing the Nationality of Immigrants landing at the Port of Boston for the several Official Years from May 10, 1848, to Oct. 1, 1881.

PLACE OF BIRTH	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.
British Prov.	1,008	2,200	1,533	1,640	2,073	2,543	2,973	3,029	3,274	2,941	993	1,472	1,339	1,011	626	1,879	2,299	3,989
England . . .	1,000	3,353	3,248	3,506	2,129	1,937	2,105	1,927	1,729	1,893	529	1,129	2,509	1,619	576	1,491	1,025	734
Wales . . .	25	30	24	27	16	73	57	402	703	6	7	4	4	11	4	16	179	-
Scotland . . .	181	665	89	293	347	429	449	432	208	153	77	37	49	-	13	24	52	174
Ireland . . .	10,827	22,441	19,432	17,209	13,141	14,429	16,143	6,729	6,087	5,592	2,336	4,132	3,492	2,003	631	1,563	739	917
Sweden . . .	86	108	144	160	697	843	1,419	716	536	759	131	32	57	100	68	5	249	68
Denmark . . .	-	-	3	4	1	13	14	17	8	19	3	-	6	4	2	-	10	14
Germany . . .	30	222	144	191	161	376	441	442	264	527	92	65	68	45	57	81	683	197
Holland . . .	-	22	-	19	106	92	19	43	15	39	5	6	-	34	2	10	-	21
Belgium . . .	-	1	-	1	-	19	-	63	142	47	-	-	-	13	-	4	302	-
France . . .	20	42	44	51	83	121	119	114	73	-	52	38	45	37	32	33	51	36
Spain . . .	8	5	8	11	3	19	11	21	14	11	12	16	4	8	16	17	-	9
Austria . . .	-	-	-	4	1	3	-	-	7	1	1	2	3	-	-	3	14	-
Hungary . . .	-	-	-	1	-	4	-	3	4	-	-	1	-	-	-	-	-	-
Switzerland . .	-	-	4	3	29	21	11	27	13	15	-	11	19	8	17	14	21	-
Italy . . .	-	24	17	31	45	53	27	49	65	169	25	15	32	11	16	17	19	-
Russia . . .	-	7	-	8	6	11	3	7	11	-	2	-	-	3	2	-	-	-
Poland . . .	-	-	-	7	8	14	3	19	11	3	-	-	4	3	1	2	-	7
East Indies . .	-	1	-	1	2	3	1	3	5	2	1	1	-	2	-	1	-	-
West Indies . .	9	5	19	21	15	14	34	41	14	25	14	4	-	11	1	12	10	30
So. America, . .	-	-	-	1	-	4	-	5	-	-	2	1	-	1	-	-	8	-
South Africa, . .	10	-	-	8	1	-	3	-	2	-	2	-	-	1	-	-	-	9
Portugal, etc. . .	3	52	21	43	158	176	390	402	230	326	243	116	189	169	127	134	130	807
Other coun- tries . . .	-	11	9	7	4	9	7	16	7	8	6	15	18	8	5	10	39	45
Totals . . .	13,927	29,518	24,739	23,307	19,618	21,206	24,229	14,408	14,022	12,536	4,551	7,096	7,874	5,091	2,196	5,316	5,830	7,057

APPENDIX.

TABLE XXIX. — *Concluded.*

PLACE OF BIRTH.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	Total.
British Prov.	4,210	3,902	4,229	4,317	3,668	3,049	2,987	2,539	2,060	1,782	1,660	1,778	2,290	3,331	7,901	10,281	98,153
England . . .	2,053	1,796	2,426	6,220	8,278	6,145	7,732	9,226	5,146	3,277	1,590	1,206	917	1,662	4,289	7,004	102,386
Wales . . .	109	—	19	42	144	97	41	33	23	23	13	12	3	10	18	36	2,214
Scotland . . .	137	117	544	979	1,081	574	1,020	942	602	418	201	104	130	234	989	2,279	13,928
Ireland . . .	3,252	4,286	4,212	8,558	11,321	9,240	9,498	12,474	8,854	5,174	2,655	1,536	1,470	2,488	11,947	12,859	258,302
Sweden . . .	129	—	57	493	581	309	1,252	1,235	601	676	433	388	667	1,949	5,730	6,735	27,533
Denmark . . .	74	—	41	27	31	85	76	132	143	123	105	51	166	225	625	315	2,328
Germany . . .	555	285	2,140	4,100	3,460	1,973	2,069	2,677	1,534	591	562	216	241	231	995	1,786	27,201
Holland . . .	49	—	149	179	149	100	31	46	51	16	14	3	13	16	18	271	1,555
Belgium . . .	—	—	210	49	11	24	15	7	22	11	17	19	5	15	34	66	1,100
France . . .	—	—	66	71	135	77	139	128	127	163	67	10	12	16	59	119	2,340
Spain . . .	16	—	19	20	21	31	—	6	5	24	15	4	3	1	10	5	373
Austria . . .	—	13	23	19	21	20	33	—	10	26	—	2	7	2	27	17	282
Hungary . . .	78	—	41	9	—	4	—	—	25	2	11	—	2	—	2	46	296
Switzerland . . .	31	19	29	68	77	23	49	15	6	21	3	1	6	1	88	15	665
Italy . . .	21	—	40	127	271	287	47	29	163	394	71	12	43	—	58	81	2,238
Russia . . .	2	—	7	3	12	19	—	96	33	27	28	—	1	1	66	55	410
Poland . . .	—	—	19	12	49	24	229	281	107	126	103	16	12	36	116	210	1,414
East Indies . . .	—	53	42	8	1	—	—	1	—	1	1	—	—	—	—	2	132
West Indies . . .	25	190	187	54	63	74	10	12	26	32	27	28	20	22	44	30	1,123
So. America . . .	4	35	37	18	5	13	14	26	3	6	15	4	3	11	9	16	232
South Africa . . .	91	17	31	56	17	11	—	21	5	3	16	11	4	1	17	2	339
Portugal, etc. . .	521	518	509	364	611	664	663	1,008	960	554	479	343	454	643	507	1,194	13,758
Other countries . . .	72	42	51	21	2	—	32	6	18	6	2	1	2	—	14	218	714
Totals . . .	11,527	11,266	15,128	26,414	30,069	22,904	25,957	31,042	20,223	13,408	8,118	5,765	6,471	10,895	33,626	43,642	559,036

IMMIGRATION STATISTICS.

TABLE XXX. — *Showing the Number of Immigrants landing monthly from Great Britain and Ireland per Cunard Line; also the Number ticketed beyond the State.*

MONTHS.	Number bonded.	Number never here before.	Number arriving.	Number ticketed beyond the State.
1880.				
October . . .	7	1,823	1,830	690
November . . .	3	613	616	279
December . . .	1	406	407	136
1881.				
January . . .	—	149	149	71
February . . .	—	130	130	65
March . . .	3	430	433	166
April . . .	8	2,221	2,229	776
May . . .	10	4,419	4,429	1,130
June . . .	3	2,595	2,598	995
July . . .	8	1,951	1,962	876
August . . .	9	2,070	2,079	901
September . . .	12	1,832	1,844	805
Totals . . .	64	18,642	18,706	6,890

NOTE. — For other statistics of immigration, see the Report of the Board, Part Third.

APPENDIX.

INSPECTION OF IMMIGRANTS IN NEW YORK.

CHAPTER 427.

AN ACT FOR THE INSPECTION OF ALIEN EMIGRANTS AND THEIR EFFECTS BY THE COMMISSIONERS OF EMIGRATION.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:—

SECTION 1. The Commissioners of Emigration are hereby empowered and directed to inspect the persons and effects of all persons arriving by vessel at the port of New York from any foreign country, as far as may be necessary to ascertain who among them are habitual criminals, or pauper lunatics, idiots, or imbeciles, or deaf, dumb, blind, infirm, or orphan persons, without means or capacity to support themselves, and subject to become a public charge, and whether their persons or effects are affected with any infectious or contagious disease, and whether their effects contain any criminal implements or contrivances.

SECT. 2. On discovering any such objectionable persons or effects, the said the Commissioners of Emigration and its inspectors are further empowered to take such persons into their care or custody, and to detain or destroy such effects if necessary for the public welfare, and keep such persons under proper treatment, and provide for their transportation and support as long as they may be a necessary public charge. The Commissioners of Emigration shall, in case of habitual criminals, and may in other cases, where necessary to prevent such persons from continuing a public charge, re-transport such person or persons to the foreign port from which they came.

SECT. 3. The Commissioners of Emigration are further empowered to board any incoming vessel from foreign ports arriving at the port of New York by its agents and inspectors, who shall have such powers as may be necessary to the effectual execution of this Act; and any person who shall resist them in the execution of their lawful function shall be guilty of a misdemeanor, and may be arrested by the officer resisted, and, upon conviction, may be sentenced to a term not exceeding six months in the penitentiary, or to pay a fine of one hundred dollars, or both.

SECT. 4. This Act shall take effect immediately.

Passed May 28, 1881.

CHAPTER 432.

AN ACT TO RAISE MONEY FOR THE EXECUTION OF THE INSPECTION LAWS OF THE STATE OF NEW YORK.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:—

SECTION 1. There shall be levied and collected a duty of one dollar for each and every alien passenger who shall come by vessel from a

IMMIGRATION LAW OF NEW YORK.

foreign port to the port of New York, for whom a tax has not heretofore been paid, the same to be paid to the chamberlain of the city of New York by the master, owner, agent, or consignee of every such vessel, within twenty-four hours after the entry thereof into the port of New York.

SECT. 2. It shall be the duty of the master or acting master of every such vessel, within twenty-four hours after its arrival at the port of New York, to report under oath to the mayor of the city of New York the names, ages, sex, place of birth, and citizenship of each and every passenger on such vessel; and in default of such report every passenger shall be presumed to be an alien arriving at the port of New York for the first time. And, in default of every such payment to the chamberlain of the city of New York, there shall be levied and collected of the master, owner, agent, or consignee of every such vessel, a penalty of twenty-five cents for each and every alien passenger, in addition to the duty heretofore imposed.

SECT. 3. It shall be the duty of the chamberlain of the city of New York to pay over from time to time to the Commissioners of Emigration all such sums of money as may be necessary for the execution of the inspection laws of the State of New York, with the execution of which the Commissioners of Emigration now are, or may hereafter be, charged by law, and to take the vouchers of the Commissioners of Emigration for all such payments. And it shall be the duty of the said chamberlain to pay over annually, on the 1st of January in each year, to the treasury of the United States, the net produce of all the duties collected and received by him under this Act after the payments to the Commissioners of Emigration aforesaid, and take the receipt of the Secretary of the Treasury therefor.

SECT. 4. The Commissioners of Emigration shall institute suits in the name of the people of the State of New York for the collection of all moneys due, or which may grow due, under this Act, the same to be paid when collected to the chamberlain of the city of New York, to be applied by him pursuant to the terms of this Act.

SECT. 5. Section one shall not apply to any passenger whose passage ticket was actually issued and paid for prior to the time this Act takes effect; but every ticket shall be presumed to have been issued after this Act takes effect, in the absence of any evidence showing the contrary.

SECT. 6. This Act shall take effect immediately.

Passed June 1, 1881.

APPENDIX.

BOSTON, SEPT. 30, 1881.

*Names of Persons sent out of the State by the Superintendent of
In-door Poor, under Chap. 83, Acts of 1860.*

	NAMES.	WHERE SENT.	EXPENSE.
1880.	•		
Oct. 1,	Olsen, Martin	New York	\$2 00
1,	Lee, William H. (colored)	Washington, D.C.	9 50
2,	Jones, William T.	Liverpool, Eng.	20 00
4,	Foster, John	New York	2 00
8,	Jim, George	"	2 00
9,	Diggins, Thomas L.	Halifax, N.S.	7 50
9,	Bacon, William	Lawrence, Mass.	80
9,	Roach, Elizabeth	New York	2 00
12,	Choninard, Adele	Montreal, Can.	8 00
12,	Sheridan, Martha	Philadelphia	5 50
12,	Sweet, Oscar	New York	2 00
13,	Malcom, Richard	Morehouse, N.Y.	8 50
13,	Eustis, James	Northfield, Vt.	6 00
15,	Vigo, Conrad Kohn	Denmark	10 00
16,	Schimmelfeming, Amalia	Sweden	24 00
18,	Ramsay, Jane	St. John, N.B.	4 50
18,	Gray, William	Portland, Me.	1 00
19,	Melley, Sarah Ann	New York	2 00
19,	Donlan, James F.	Portland, Me.	1 00
20,	Ryan, Eugene	New York	2 00
21,	McCabe, Thomas	Providence, R.I.	1 00
22,	McLaughlin, Charles	New York	2 00
22,	Lynch, William	"	2 00
23,	Berg, Nicholas A.	Norway	8 00
28,	Flood, John	New York	2 00
28,	Pennock, Cyrus	Manchester, N.H.	1 50
Nov. 3,	Monlton, Cyrus	Albany, N.Y.	5 00
3,	Doherty, Catherine	New York	2 00
4,	Jackson, Charles F.	"	2 00
8,	Kinna, Owen	Pittsfield, Mass.	3 75
9,	Morrill, Ira	New York	2 00
10,	Burke, Thomas	"	2 00
10,	Muller, John	Cincinnati, Ohio	10 00
10,	Muller, Maria	" "	
10,	Muller, John	" "	
10,	Muller, Bertha	" "	
10,	Muller, Ludovic	" "	
10,	Muller, Eliza	" "	1 00
11,	Darling, Jane	Providence, R.I.	
12,	Grogan, Bridget	Albany, N.Y.	
13,	Hopkins, William	New York	
16,	Trefry, Edward	"	
16,	Dillon, Wesley C.	"	4 00
16,	Dillon, Emma W.	"	
17,	Sullivan, Michael	"	2 00
17,	Kendall, John F.	"	2 00
17,	Harris, Malvena	Springfield, Mass.	4 90
17,	Harris, Esther	" "	
17,	Harris, Maria	" "	
17,	Harris, James	" "	

PERSONS REMOVED FROM THE STATE.

Persons Removed — Continued.

	NAMES.	WHERE SENT.	EXPENSE.
1880.			
Nov. 18,	Hilton, Fred	New York	\$2 00
19,	Littlefield, Jerry	Portland	1 00
20,	Wells, Ellen	Liverpool, Eng. . . .	20 00
20,	Canning, George	New York	2 00
20,	Flynn, William	Providence	1 00
20,	Baker, William R. . . .	New York	2 00
22,	Mitchell, Matilda	Keene, N.H. . . .	} 6 00
22,	Mitchell, James	" "	
22,	Mitchell, Alice	" "	
22,	Mitchell, John	" "	
23,	Doyle, Jerry	New York	2 00
23,	Welsh, Morgan	Gloucester, Mass. . . .	65
27,	Sheehan, Timothy	New York	2 00
29,	Waldron, John	Pawtucket, R.I. . . .	} 2 00
29,	Waldron, Eliza	" "	
29,	Waldron, Barney	" "	
29,	Waldron, Agnes	" "	
29,	Johnson, Annie	New York	2 00
29,	Broderick, Mary Jane	Manchester, N.H. . . .	1 50
29,	Pratt, Adelaide	New York	2 50
30,	Finch, Ellen	Bolton, Eng. . . .	} 44 00
30,	Kirkham, James	" "	
30,	Finch, Ernest	" "	
30,	Finch, Albert	" "	
30,	Finch, Arthur	" "	} 2 00
30,	Skinner, James E. . . .	New York	
30,	Reardon, Thomas	Southington, Conn. . . .	
30,	Reardon, Mary	" "	
30,	Welch, Michael	Chicago, Ill. . . .	} 15 00
30,	Welch, Nora	" "	
30,	Welch, Timothy	" "	
30,	Welch, Mary	" "	
Dec. 1,	Dudley, Carrie	Texas	20 00
1,	Lang, Elizabeth	Concord, N.H. . . .	2 00
3,	Kelley, George	Portland, Me. . . .	1 00
3,	Lockner, Stephen	" "	1 00
3,	Johnson, Fred. (colored)	New York	2 00
3,	Brady, John	" "	2 00
4,	Hayes, Robert	Stockton, Eng. . . .	23 00
4,	McCarron, James	Providence	1 00
4,	McCarty, Catherine	Ireland	3 00
6,	Carey, Kary	Bath, Me. . . .	} 8 00
6,	Carey, Mary	" "	
6,	Benners, Isaac D. . . .	Philadelphia	
6,	Benners, Hannah E. . . .	" "	
6,	Benners, Henry C. . . .	" "	} 27 00
6,	Benners, Edwin H. . . .	" "	
6,	Benners, William H. . . .	" "	
6,	Ward, Julia J. . . .	" "	
6,	Flynn, Cornelius	New York	2 00
7,	O'Neil, John	" "	2 00
8,	Blanchard, William	Haverhill, N.H. . . .	} 12 00
8,	Blanchard, Catherine	" "	
8,	Blanchard, Thomas	" "	
8,	Blanchard, Willie	" "	
9,	Haynes, Richard (colored)	New York	2 00
9,	Callahan, Michael	Worcester, Mass. . . .	1 10
11,	Brennan, James	Lowell, Mass. . . .	} 1 60
11,	Brennan, Mary	" "	
11,	Mack, Patrick	New York	2 00

APPENDIX.

Persons Removed—Continued.

	NAMES.	WHERE SENT.	EXPENSE.
1880.			
Dec. 11,	Taylor, Charles H. . . .	Peterborough, N.H. . . .	\$2 75
13,	Reynolds, Michael	Putnam, Conn. . . .	1 90
13,	Moneriff, Jane	Philadelphia	5 00
14,	Brvant, Agnes	Canada	5 00
16,	Wilson, Henry	New York	2 00
17,	Howard, David	"	2 00
17,	Kelly, James	"	2 00
18,	Cobb, Cyrus	Utica, N.Y. . . .	} 9 00
18,	Cobb, Amelia	" "	
21,	Holly, Robert	New York	} 4 00
21,	Holly, Louise	"	
21,	Holly, Charles	"	
21,	Groves, William	"	1 00
22,	Berry, Daniel M. . . .	Portland, Me. . . .	1 00
22,	Quinn, Joseph	New York	2 00
22,	Thompson, Charles	"	2 00
22,	Hanniford, Maria	New Orleans	15 00
24,	O'Brien, James	New York	2 00
24,	Cowen, Ann	Manchester, N.H. . . .	1 50
27,	Shields, Moses	Portland, Me. . . .	1 00
27,	Williams, Thomas	New York	2 00
28,	Morton, William (colored)	Halifax, N.S. . . .	7 50
1881.			
Jan. 1,	Dwinall, James H. . . .	Portland, Me. . . .	1 00
1,	Reagan, Timothy	" "	1 00
1,	Shepperd, George E. . . .	" "	1 50
1,	Doherty, Stephen J. . . .	" "	1 00
1,	Moriarty, Fergus	St. John, N.B. . . .	4 50
1,	Bryan, John	New York	2 00
1,	Hakefelt, Charles J. . . .	"	2 00
1,	Perkins, Samuel	Providence, R.I. . . .	1 50
1,	Haley, Bernard	New York	2 00
1,	O'Leary, Patrick	"	2 00
3,	Sullivan, Mary	"	} 2 00
3,	Sullivan, Mary	"	
4,	Duffy, John	"	} 2 00
4,	Duffy, Margaret	"	
4,	Nealis, Rose	Paterson, N.J. . . .	2 75
4,	Lucas, Anthony (colored)	Portchester, N.Y. . . .	} 6 00
4,	Lucas, Mary (colored)	" "	
4,	Lucas, John E. (colored)	" "	
4,	Mingay, Mary	Quebec, Can. . . .	9 00
5,	Brainard, Thomas	New York	2 00
6,	Stephenson, William	"	2 00
6,	Gilmore, Sarah	Portland, Me. . . .	1 25
6,	West, John L. . . .	Utica, N.Y. . . .	2 00
6,	McHolland, James	St. John, N.B. . . .	4 50
6,	Ryan, Daniel	Montreal, Can. . . .	8 50
6,	Bierupie, Emile	" "	8 50
7,	McCarty, John	New York	2 00
7,	Kenney, Patrick	Philadelphia	4 50
8,	Whinton, Egbert	Quebec, Can. . . .	9 00
8,	Geslyn, Eva	Webster, Mass. . . .	1 65
8,	Madden, Edward	Illinois	11 50
10,	Cooper, Benjamin (colored),	New York	2 00
13,	Stewart, George E. . . .	Haverhill, Mass. . . .	1 00
13,	Mooney, William H. . . .	Salem, Mass. . . .	45
13,	Dunn, James	New York	2 00
13,	Cain, George	Palmer, Mass. . . .	2 08

PERSONS REMOVED FROM THE STATE.

Persons Removed — Continued.

	NAMES.	WHERE SENT.	EXPENSE.
1881.			
Jan. 15,	Leary, Richard	New York	\$2 00
15,	Treadwell, John A. (colored),	"	2 00
17,	Mulligan, James	Manchester, N.H. . . .	1 50
17,	Russell, Edward	New York	2 00
17,	Stone, Ellen	Springfield, Mass. . . .	2 45
17,	Maxwell, James	New York	2 00
20,	Spring, Frank W. . . .	Springfield, Mass. . . .	2 45
20,	Campbell, Edward	Washington, D.C. . . .	7 50
20,	Welch, Patrick	New York	2 00
20,	O'Neil, John G. . . .	St. John, N.B. . . .	4 50
20,	Sherritt, Annie	Portland, Me. . . .	1 00
20,	McGovern, Patrick	Meriden, Conn. . . .	3 55
21,	Thompson, Joseph	Louisville, Ky. . . .	10 00
21,	Fuller, Mehitabel	St. Johnsbury, Vt. . . .	} 5 00
21,	Fuller, Clara	" "	
21,	Fuller, William	" "	
21,	Fuller, Harriet	" "	
21,	Fitzmaurice, Kate	New York	} 2 00
21,	Fitzmaurice, David	"	
21,	Stone, Helen M. . . .	"	2 00
21,	Trenor, Margaret	Montreal, Can. . . .	10 00
24,	Duvalgoger, Sarah E. . . .	Washington, D.C. . . .	11 00
24,	Green, Sydney D. . . .	Swanton, Vt. . . .	7 55
25,	Felis, Joseph	New York	2 00
25,	Lynch, John	"	2 00
25,	Nichols, Addie S. . . .	"	} 2 00
25,	Nichols, George	"	
25,	Brown, Alexander	"	
27,	Daley, Mary	"	2 00
27,	Moore, Thomas	Philadelphia	4 50
27,	Callaghan, Jeremiah	New York	2 00
Feb. 1,	Wilson, William	"	2 00
1,	Callahan, Patrick	"	2 00
1,	Younger, James (colored)	"	2 00
1,	Hennessy, James	Portland	1 00
3,	Austin, Moses	"	1 25
3,	Wilson, William (colored)	New York	2 00
3,	Henry, Stephen (colored)	"	2 00
4,	Hurley, Joseph	Gloucester, Mass. . . .	1 00
5,	Jones, Osgood C. . . .	Portland	1 00
5,	Faucett, Wm. J. H. . . .	Walpole, Mass. . . .	50
5,	Brightman, Harry	New Bedford, Mass. . . .	1 40
5,	Cunningham, Edward J. . . .	"	1 40
7,	Smith, Alfred	Niagara, Can. . . .	} 4 51
7,	Smith, Catherine	" "	
7,	Smith, Kate	" "	
8,	Cole, Lewis E. . . .	New York	2 00
9,	Ford, John	Gloucester, Mass. . . .	65
9,	Peirce, Charles	Portland, Me. . . .	1 00
9,	Comstock, Thomas	Illinois	9 00
10,	Sime, James	Halifax, N.S. . . .	6 50
10,	King, Susannah	St. John, N.B. . . .	} 4 50
10,	King, Robert M. . . .	" "	
10,	Riley, John	Fall River, Mass. . . .	1 40
10,	Prate, Edwin	Providence, R.I. . . .	1 00
11,	Davenport, John W. . . .	Manchester, N.H. . . .	1 50
11,	McLaughlin, Angus	St. John, N.B. . . .	4 50
16,	Flannigan, Mary A. . . .	New York	2 00
16,	Conway, Charles	Stafford Springs, Conn. . . .	3 00
17,	Clarke, Harry W. . . .	Cincinnati, Ohio	11 50

APPENDIX.

Persons Removed — Continued.

	NAMES.	WHERE SENT.	EXPENSE.
1881.			
Feb. 17,	McKenna, John	Paterson, N.J. . . .	\$2 45
17,	Nelson, Frank	Fall River	1 40
17,	Grant, Fred	Providence, R.I. . .	1 00
17,	Osgood, Charles	Manchester, N.H. . .	1 50
18,	Finnen, Michael	New York	2 00
18,	George, Lemuel	Portland, Me. . . .	1 00
19,	Cook, William	New York	2 00
21,	Finney, Frank	"	2 00
21,	Hamilton, Henry	"	2 00
21,	Dhirauf, Michael	"	2 00
23,	Dawley, Charles H. . . .	"	2 00
23,	Brierly, Lindsey	"	2 00
25,	Carmody, Patrick	"	2 00
25,	Kehoe, John	Concord, N.H. . . .	2 00
25,	Greenough, Francis	Halifax, N.S. . . .	7 50
Mar. 2,	Sweet, Robert	Montreal	2 00
2,	Carr, A. P. . . .	Bangor, Me. . . .	3 50
2,	Parker, Samuel	Providence, R.I. . .	1 00
2,	Newman, Mary	Hartford, Conn. . .	3 10
5,	Grinnell, John W. . . .	Putnam, Conn. . . .	1 90
5,	Sharples, Thomas	Portland, Me. . . .	75
5,	Dodge, Sherman W. . . .	New London, Conn. .	3 00
7,	Macbeth, Gordon	New York	2 00
8,	Cruse, William	Providence, R.I. . .	1 00
8,	Swyke, Simeon	New York	2 00
9,	Cox, Owen	"	2 00
10,	Elder, John	Lonsdale, R.I. . . .	1 00
10,	Carey, Michael	New York	2 00
10,	Cole, John	"	2 00
12,	Tanguay, G. B. . . .	Quebec, Can. . . .	8 75
12,	Prescott, Delina	Montreal, Can. . . .	} 15 00
12,	Prescott, Masy	" "	
12,	Prescott, Francis	" "	
12,	Prescott, Rosana	" "	
12,	Prescott, Rosey	" "	
13,	Doherty, John	New York	2 00
12,	Turner, John	Portland, Me. . . .	1 00
14,	Brazell, Thomas	" "	1 00
14,	Bruce, Robert	New York	2 00
14,	Forsaith, Alice	St. John, N.B. . . .	4 50
18,	Dube, Albert	Montreal, Can. . . .	3 00
18,	Lyons, Mary	" "	9 00
21,	Bowes, John	" "	4 00
21,	Harper, Peter (colored)	Halifax, N.S. . . .	7 50
22,	Ryan, Ellen	New York	2 25
24,	Crandell, Henry	"	2 25
25,	Doherty, John, jun. . . .	"	2 25
25,	Johansen, Gustava	Sweden	4 00
April 1,	Mahon, James H. . . .	Portland, Me. . . .	1 00
1,	Connor, Thomas	New Haven, Conn. . .	4 00
1,	Bateman, William	New York	2 25
2,	Hurd, John	"	2 25
4,	Nelson, Mary	Montreal. . . .	8 40
8,	King, James	New York	2 25
8,	Riley, Patrick	"	2 25
11,	Frain, Michael	Providence, R.I. . .	1 00
12,	Cross, Amos	"	1 00
12,	Daily, Thomas	Philadelphia	5 50
13,	Forbes, Martin J. . . .	New York	2 25
13,	Ogden, John (colored) . .	St. John, N.B. . . .	4 50

PERSONS REMOVED FROM THE STATE.

Persons Removed — Continued.

	NAMES.	WHERE SENT.	EXPENSE.
1881.			
April 13,	Gladden, Wm. H. (colored),	Augusta, Me. . . .	\$4 00
14,	Nichols, Addie S. . . .	Portland, Me. . . .	1 25
15,	Manton, Mary	Ireland	28 00
16,	Anderson, Eliza	New York	2 25
18,	Harteley, James	Providence, R.I. . . .	1 00
19,	McLaughlin, William	New York	2 25
19,	Crowley, Minnie	Buffalo, N.Y. . . .	11 15
19,	Crowley, Julia	" "	
19,	Crowley, Patrick	" "	
19,	Crowley, Jerry	" "	
20,	Compton, Jacob	New York	4 50
20,	Compton, Margaret	" "	
21,	Johnson, Joseph	Liverpool, Eng. . . .	1 50
21,	O'Sullivan, Francis J. . . .	Toronto, Can. . . .	14 00
22,	Sullivan, James	New York	2 25
23,	Murphy, Phillip	Ireland	21 00
23,	McDonald, Minnie	Halifax, N.S. . . .	7 50
26,	Held, Emily	New York	6 00
26,	Boray, George	" "	
22,	Boray, Alexander	" "	
26,	Christie, James	" "	2 25
27,	Allson, Marcus	Albany, N.Y. . . .	5 00
28,	Pinkney, Mary	Digby, N.S. . . .	5 00
30,	Dunnigan, Bridget	Ireland	1 50
30,	Drummond, George C. . . .	New York	2 25
30,	Griffin, Richard	Providence, R.I. . . .	1 00
30,	Wallace, William	New York	2 25
May 1,	Tomalin, Matilda	Hull, Eng. . . .	24 00
2,	Carpenter, William	New York	2 25
2,	McKendry, Curley D. . . .	St. John, N.B. . . .	4 50
2,	Harris, John P. . . .	New York	2 25
4,	Feeney, John	Lewiston, Me. . . .	2 25
4,	McCarty, Michael	Portland, Me. . . .	1 00
5,	Grady, John	New York	2 25
5,	Cummings, Matilda	Albany, N.Y. . . .	7 50
5,	Cummings, Mary A. . . .	" "	
5,	Cummings, George E. . . .	" "	
6,	Ring, Thomas	Portland, Me. . . .	1 00
16,	Burke, John W. . . .	Moncton, N.B. . . .	7 00
16,	Isaacs, Louis	New York	2 25
19,	Twohey, John	Taunton, Mass. . . .	1 00
20,	Burchell, Samuel (colored)	New York	1 00
20,	Semiene, Julia	Canada	17 62
20,	Semiene, Frank	" "	
21,	O'Keefe, Michael	Ireland	20 00
21,	Wilson, John	England	20 00
21,	Powers, John	Ireland	7 00
23,	Davis, Flora	Portland	1 25
25,	Snagney, Michael	Ireland	6 00
25,	Graham, Michael	Pittiam, Conn. . . .	1 00
26,	Stone, Robert O. . . .	Portland, Me. . . .	1 00
26,	Murphy, Sarah	New York	6 75
26,	Murphy, Louisa	" "	
26,	Murphy, Agnes	" "	
26,	Murphy, Sarah	" "	
26,	Murphy, Kendrick	" "	
26,	Murphy, Samuel	" "	4 50
26,	Ferguson, Margaret	Calais, Me. . . .	
26,	Guy, Maggie E. . . .	Portland, Me. . . .	
27,	Coen, George H. . . .	Providence, R.I. . . .	1 00

APPENDIX.

Persons Removed — Continued.

		NAMES.	WHERE SENT.	EXPENSE.
1881.				
June	1,	Murphy, Eliza E. . . .	New York	\$2 00
	1,	Mead, Ida	Philadelphia	} 5 50
	1,	Mead, William	"	
	1,	Mead, Emma	"	
	1,	Gray, John	Augusta, Me. . . .	2 00
	4,	Parsons, Mary Ann	Charlottetown, P.E.I. . . .	} 8 00
	4,	Parsons, Arthur	"	
	4,	Kline, Frederick	New York	3 00
	6,	Flaven, Peter	Portland	1 00
	6,	Lang, John	New York	3 00
	6,	Belcher, Charles	Worcester, Mass. . . .	1 10
	10,	Warner, Marian (colored)	Fairfax, Va. . . .	12 00
	11,	Kelley, Catherine	Ireland	5 00
	11,	Culy, Edmond T. . . .	Portland	1 00
	13,	Seavey, Ellen	Newburyport, Mass. . . .	1 10
	14,	Wallace, Jennett	St. Albans, Vt. . . .	8 00
	15,	O'Shaughnessy, Hannah	St. John, N.B. . . .	} 2 50
	15,	O'Shaughnessy, Dennis T. . . .	"	
	15,	O'Shaughnessy, Katy	"	
	15,	Marx, Henry	Providence, R.I. . . .	1 00
	18,	Wallace, Winefred	Putnam, Conn. . . .	1 90
	18,	Walsh, Ellen	Manchester, N.H. . . .	1 50
	18,	Johnson, Alfred	Manch Chunk, Penn. . . .	8 00
	27,	McDonald, John	Providence	1 00
	27,	White, Harry (colored)	Adrian, Mich. . . .	11 65
	29,	Tewell, Joseph	New York	3 00
July	1,	Sanborn, George	Nashua, N.H. . . .	1 20
	5,	Meisel, Alexander	New York	3 00
	5,	McDonald, Ann	Philadelphia	5 50
	5,	Cunnolly, Fanny	Halifax, N.S. . . .	7 50
	5,	Noah, Joseph	Palestine*	6 00
	8,	Fryer, Delia	New York	3 00
	8,	Murphy, Julia	Portland	1 00
	8,	Collins, Katie	Antigonish, N.S. . . .	10 75
	9,	McDonald, James	New York	3 00
	9,	Stewart, William G. . . .	West Warren, Mass. . . .	2 85
	11,	Dwyer, William	Providence	1 00
	15,	Dyer, Frank R. . . .	Jonesport, Me. . . .	5 00
	16,	Hunter, William S. . . .	New York	} 6 00
	16,	Hunter, Ann	"	
	19,	Noyes, Sarah	Hyde Park, Vt. . . .	5 00
	19,	La Cast, Maria	St. Albans, Vt. . . .	} 12 00
	19,	La Cast, Willie	"	
	19,	La Cast, Maggie	"	
	19,	Kelley, Patrick	New York	3 00
	20,	Hallock, Edward	"	1 50
	20,	McKnight, Frank	"	3 00
	21,	Flood, Margaret	Lawrence, Mass. . . .	80
	21,	Sugden, Hannah	"	80
	22,	Farrell, Stephen	Exeter, N.H. . . .	1 50
	26,	Morrison, Maggie	Montreal, Can. . . .	} 1 00
	26,	Morrison, James	"	
	26,	Rotland, Charles	New York	3 00
	27,	Hummell, Bertha	"	3 00
	29,	Easterbrook, John	St. John, N.B. . . .	4 50
Aug.	4,	Dazell, Charles	New York	3 00
	5,	Sweeney, Maggie	Lewiston, Me. . . .	2 00
	6,	Haywood, John Smith	England	3 00
	9,	Dilkes, Eliza	New York	4 00
	11,	McCarty, Michael	"	3 00

PERSONS REMOVED FROM THE STATE.

Persons Removed — Concluded.

	NAMES.	WHERE SENT.	EXPENSE.
1881.			
Aug. 12,	Brown, Daniel	New York	\$3 00
13,	Russell, Lonisa	Providence	1 00
15,	Senate, Albert	Portland	1 00
15,	Rimfield, Morris	New York	3 00
18,	De Wolf, Elisha	Annapolis, N.S. . . .	5 00
18,	Hunt, Charles J. . . .	Montreal, Can. . . .	8 00
19,	Nyman, Frederick	Gottenburg	3 00
23,	Canzec, Mary	Philadelphia	} 2 50
23,	Canzec, Adrian	"	
23,	Canzec, John	"	
23,	Canzec, Patrick	"	
24,	Buckley, James	New York	3 00
27,	Moynahan, Ellen	London, Eng. . . .	} 31 50
27,	Moynahan, Annie	"	
27,	Clifton, Lillie	Hull, Eng. . . .	23 00
31,	McHale, Patrick	Haverhill, Mass. . . .	1 00
Sept. 1,	Forsburg, John	New York	3 00
3,	Condon, Alice	Quebec, Can. . . .	2 00
5,	Reynolds, Samuel	New York	3 00
5,	McDonald, Robert	"	3 00
6,	Whitney, Robert	"	3 00
7,	Dixon, Catherine	Dorchester, N B. . . .	4 50
7,	Faley, James	New London, Conn. . . .	} 3 00
7,	Faley, Bridget	"	
7,	Gray, Adelaide	Richmond, Va. . . .	16 00
9,	Vinardin, Henry L. . . .	New York	3 00
10,	Burke, Peter	England	20 00
10,	Sullivan, Dennis	Ireland	20 00
12,	Earnshaw, W. G. . . .	New York	3 00
13,	Donahoe, John	Providence, R.I. . . .	1 00
13,	Genesti, Leon	Philadelphia	5 50
13,	Turner, Maria	Richmond, Va. . . .	12 00
14,	O'Brien, Patrick	New York	3 00
15,	Murray, William	"	2 00
15,	Carney, Mary	Fall River, Mass. . . .	1 40
16,	Wolf, William	New York	3 00
17,	Andrews, Charles	Portland	1 00
17,	O'Neil, Anna	Port Hawkesbury	8 00
17,	McLaughlin, Margaret	England	1 50
19,	Iversen, Maren	Philadelphia	} 2 50
19,	Hansen, Luga K. . . .	"	
20,	Murphy, William	Halifax, N.S. . . .	6 50
21,	Brown, Rebecca	Richmond, Va. . . .	10 00
22,	Dragoon, Solomon	New York	} 6 00
22,	Dragoon, Jennie	"	
22,	Dragoon, Ida Jane	"	
22,	Dragoon, George Henry	"	
22,	Dragoon, Lillie Belle	"	} 14 00
22,	Dragoon, Bertha May	"	
22,	Burchard, Matilda	Harrisburg, Penn. . . .	
22,	Burchard, Agnes	"	
22,	Burchard, Mary	"	} 75
22,	Burchard, Thomas	"	
23,	Ryan, James	Portland, Me. . . .	75
23,	Moss, John	"	75
23,	Dinteto, Julia C. . . .	Montreal	8 00
24,	Langenscheidt, Guillermo	New York	3 00
26,	Darveau, Joseph	Portland	75
28,	Clancey, James	New York	3 00
29,	Craig, Daniel	Providence, R.I. . . .	1 00

APPENDIX.

EXPENSES OF THE BOARD FOR THE OFFICIAL YEAR
ENDING SEPT. 30, 1881.*Classified by Departments.*

THE BOARD OF HEALTH, LUNACY, AND CHARITY.

Travelling expenses of members	\$703 63
Printing and stationery	163 30
Postage.	10 00
Total	<u>\$876 93</u>

HEALTH DEPARTMENT.

H. P. Walcott, Health Officer	\$2,500 00
Thomas Hay, Clerk	800 00
Travelling and miscellaneous expenses	3,506 51
Total	<u>\$6,806 51</u>

INSPECTOR'S DEPARTMENT.

ORDINARY EXPENSES.

Salaries.

F. B. Sanborn, Inspector	\$2,500 00
H. C. Prentiss, Clerk	1,350 00
H. A. Purdie, Clerk	866 67
S. E. Sanborn, Clerk	572 50
A. D. Delano, Clerk	737 50
G. T. Jacobs, Clerk	737 50
Total	<u>\$6,764 17</u>

OTHER ORDINARY EXPENSES.

Travelling expenses of Inspector	\$240 38
Printing, stationery, and publications	237 73
Postage and expressage	96 65
	<u>574 76</u>
Total ordinary expenses	<u>\$7,338 93</u>

EXTRAORDINARY EXPENSES.

Visitation of Almshouses.

Services of Visitors	\$192 50
Travel of Visitors	207 30
	<u>399 80</u>
Aggregate expenses	<u>\$7,738 73</u>

EXPENSES OF THE BOARD.

IN-DOOR POOR DEPARTMENT.

(Including Settlement and Bastardy and Visitation.)

Expenses for the Official Year ending Sept. 30, 1881.

	Services.	Travelling Expenses.	Incidentals.	Total.
S. C. Wrightington, Supt.	\$2,500 00	\$564 00	\$1,022 78	\$4,086 78
Chas. M. Hanson, Asst. .	1,500 00	154 00	272 64	1,926 64
Willard D. Tripp, Asst. .	1,500 00	—	368 93	1,868 93
James H. Lewis, Asst. .	1,200 00	1,552 37	51 58	2,803 95
Abram G. Hart, Asst. .	1,200 00	354 79	—	1,554 79
H. H. Fairbanks, Clerk .	1,150 00	—	—	1,150 00
J. E. Gilman, Clerk .	1,000 00	166 70	—	1,166 70
Charles A. Colcord, Clerk,	1,000 00	4 50	33 50	1,038 00
James H. McGuire, Clerk,				
11 months	916 66	—	232 81	1,149 47
A. G. McVey, Clerk, .	900 00	528 55	—	1,428 55
George E. Farley, Clerk .	800 00	25 45	—	828 45
Patrick Glynn, Clerk .	800 00	—	14 50	814 50
Fred. M. Moro, Clerk .	500 00	—	4 45	504 45
M. E. Hanson, Clerk .	600 00	—	—	600 00
J. W. Wright, Clerk .	600 00	—	—	600 00
Henry S. Milton, Attorney,	50 00	—	—	50 00
Temporary Assistants .	442 00	113 03	—	555 03
Total	\$16,658 66	\$3,463 39	\$2,001 19	\$22,123 24

Expenses attending the Removal and Transfer of Paupers.

	Removals.	Transfers.	Officers' Expenses.	Total.
S. C. Wrightington . .	\$4,460 19	\$148 96	\$144 20	\$4,753 35
Charles M. Hanson . .	1,321 67	98 70	97 35	1,517 72
Charles A. Colcord . .	1,964 03	500 62	167 70	2,632 35
James H. McGuire . .	483 89	—	—	483 89
George E. Farley . .	1,110 26	27 50	71 20	1,208 96
Patrick Glynn . .	269 51	13 75	17 75	301 01
Fred. M. Moro . .	51 70	—	5 75	57 45
Total	\$9,661 25	\$789 53	\$503 95	\$10,954 73

APPENDIX.

OUT-DOOR POOR DEPARTMENT.

	Services.	Travelling Expenses.	Office Expenses.	Total.
H. B. Wheelwright, Supt.	\$2,500 00	\$467 29	\$119 25	\$3,086 54
George B. Tufts . . .	1,500 00	-	42 41	1,542 41
E. F. Cummings . . .	1,500 00	60 25	-	1,560 25
Geo. H. Burt and Substitute,	976 67	332 33	-	1,309 00
S. A. Wheeler	1,000 00	190 01	-	1,190 01
E. I. White	950 00	444 58	-	1,394 58
A. B. Witherell	600 00	164 88	8 12	773 00
W. E. Carl	720 00	-	-	720 00
J. P. Coombs	400 00	-	-	400 00
A. G. Smith	600 00	-	-	600 00
M. E. Hamblin and Sub-				
stitute	600 00	-	-	600 00
S. E. Hayes	691 00	-	-	691 00
L. H. Brownell and Sub-				
stitute	600 00	-	-	600 00
A. M. Noonan	668 00	-	-	668 00
S. M. Crawford	1,000 00	-	-	-
M. E. Parker	300 00	-	-	-
Temporary Assistants .	1,064 08	-	-	1,064 08
Printing and stationery .	-	-	113 40	113 40
Incidentals	-	-	4 75	4 75
Totals	\$15,669 75	\$1,659 34	\$287 93	\$17,617 02

Of the above aggregate in the Out-door Poor Department, the sum of \$15,093.94 was drawn from the regular appropriation for the department, and the sum of \$2,523.08 was drawn from the Temporary Aid appropriation, under which the work was done, which was thus paid for.

The above expenses are for the official year ending Oct. 1. For the calendar year the expenses differ slightly in details, and are less in amount. There has been no increase in the aggregate on account of the increased work done in 1881, as explained in the text of the Report.

EXPENSES OF THE BOARD FOR THE CALENDAR YEAR 1881.

APPROPRIATIONS FOR THE BOARD OF HEALTH, LUNACY, AND CHARITY,
FOR THE CALENDAR YEAR 1881, WITH THE ACTUAL EXPENDITURES.*Appropriations.*

For the Board	\$1,200 00
Department of Health	8,300 00
Department of the Inspector of Charities	8,000 00
Department of In-door Poor	23,500 00
Department of Out-door Poor	15,000 00
Removals and Transfers	\$10,600 00
Settlement and Bastardy	2,000 00
	<hr/> 12,600 00
	<hr/> \$68,600 00

Expenses.

Of the Board	\$1,020 80
Department of Health	*4,358 66
Department of the Inspector of Charities	*7,966 88
Department of In-door Poor	22,510 62
Department of Out-door Poor	†15,000 00
Removal and Transfer of Paupers	\$9,997 71
Settlement and Bastardy	648 65
	<hr/> 10,646 36
Aggregate	†\$61,503 32
Unexpended balance	7,096 68

* This will be somewhat increased by future payments.

† To this should be added \$2,793.93 drawn from the Temporary Aid appropriation, and that for the care of foundlings; the latter to pay for medical supervision.

APPENDIX.

THE SETTLEMENT OF INDIANS AND PERSONS OF COLOR.

[See Report, p. cxxxvi.]

UPON THE QUESTION OF THE SETTLEMENT OF EUNICE ROCKER.

BOSTON, Sept. 27, 1881.

I.

It is admitted that Eunice Rocker was the legal wife of Antone Rocker, deceased.

That said Antone Rocker had no settlement in this State.

That said Eunice Rocker gained no settlement anywhere in her own right, by reason of "aid at the public expense."

II.

If said Eunice had any settlement, she must have derived it, —

1. From her father, William H. Matthews. Said Matthews derived no settlement in this State, and performed no act requisite thereto, except to own in freehold, and to reside on real estate, for the term of three full years. It is proven that he did. But to gain settlement it was necessary for him to be a citizen of some one of the United States. This is not yet proven.

Nor can it be proven for thousands of persons now admitted to be settled in different towns in this State. There is a "moral certainty" of the fact, and common sense and equity require these settlements to be conceded: but, if the above test be applied to settlements derived from persons who migrated hither from other States, in numerous instances neither native origin nor naturalization can be proven; and a complication most embarrassing and distressing in its consequences must ensue.

The great bulk of the colored population deemed settled under the Act of 1794 would thus be dissettled; and death and other causes would bar their descendants from deriving from them under the Act of 1874.

As far as is known of Matthews, he claimed to have been born in Maryland.

He bore a name common in his birthplace.

He was of mixed blood.

He spoke the English tongue without mixture of foreign dialect.

No pretence of foreign origin appears till it is needed to deprive his children of a local right.

With these presumptions in his favor, with no evidence to the contrary, and in accordance with the public policy (as made plain subse-

THE QUESTION OF INDIAN SETTLEMENT.

quently in the Acts of 1868, amended in 1871), which is promoted by the localizing of as many and the dissettling of as few as possible, we believe that William H. Matthews is equitably entitled to be deemed settled in Edgartown, and to have transmitted his rights to his widow and such children as were minors upon the completion of his three years' residence upon his own real estate.

And we further believe that it would be impolitic and dangerous to establish a precedent that would induce other towns to repudiate long-conceded settlements, and delocalize large numbers of worthy residents, as soon as it should appear that all evidence of nativity or naturalization had perished.

Failing a paternal settlement, —

2. She must have derived from or through her mother Margaret Matthews, *née* Prince.

But Margaret, being early married, gained no settlement for herself prior to the death of her husband, and the emancipation, by marriage, of her daughter. In fact, if she had a prior settlement in Edgartown, she could not gain another in the same town.

If she had none, and could thus gain under the Act of 1874 or of 1879, she could not transmit it to her daughter, who was then of age and married, unless those two Acts be deemed retroactive, in such sense as to cover children who were minors at the time of completion of the five years of residence, no matter how long ago it occurred, — a question we do not care to discuss at present.

Failing a settlement *from* her, it only remains to inquire if Eunice Rocker gained a settlement *through* her mother from her grandparents.

III.

Margaret Matthews was the daughter of Lawrence and Love Prince. It is admitted that Lawrence was an alien, and died without settlement

It is proven that Love Prince received, by Act of Legislature in 1828, a grant of land in fee-simple, on which she lived for many years, and reared children and grandchildren.

By Act of 1868, amended by the Act of 1871, any person over twenty-one might acquire settlement by residing three years on his own real estate without aid as a pauper.

By the decision of the Supreme Judicial Court, in the case of *Springfield v. Wales*, this settlement covers all children who were minors at the close of the three years' residence; and all the usual consequences will follow.

Love Prince transmits her settlement thus gained to her daughter, Margaret Matthews, and she to her daughter, Eunice Rocker, precisely as if all the parties had been citizens of the United States from birth, and no disability had intervened.

APPENDIX.

IV.

It has been suggested that the tribal relation of Love Prince to the Chappaquiddick Indians might interfere with her acquisition of a settlement. We think not.

The laws of settlement are based on necessity, convenience, justice, and humanity.

These laws, we are taught, are to be construed literally, and each in connection with the others.

A negro slave followed the settlement of his master. Here were necessity and convenience. A manumitted slave could gain a settlement for himself. Here came in justice and humanity (4 Mass., 123).

"An estate of freehold in trust may give a settlement to the *cestui que trust*" (2 Pick., 29).

The Indians were under guardianship, not specially as against incompetence, but as against improvidence, and for the distribution of the annual bounty of the State for their best advantage.

But a person under guardianship as a spendthrift could gain a settlement by living three successive years on his own freehold (3 Met., 165).

Even a *non compos mentis* will not follow the settlement of his father, if "he has an estate sufficient to give him a settlement in virtue thereof."

If, then, the negro slave held as a "chattel," the manumitted African, the spendthrift, and the fool were deemed sufficiently "citizens of the United States" to gain a settlement prior to the Acts of 1868 and 1871, is it not fair to conclude that a "person of color," "Indian so called," having intelligence, capacity for self-support, and entire free agency under the law, except as to selling his land, is competent to come within the definition of "persons" (the word substituted in those Acts for "citizens") who should have the right so to gain?

By the Acts of 1862, chap. 184, the Legislature fully indicated its opinion of the competence of these "Indians" to gain settlement by placing all of them, with certain exceptions, "upon the same legal footing as the other inhabitants of the Commonwealth," and by granting to these exceptions the same privilege upon their going through a trifling ceremony; and, in the words of that Act, "settlement shall be acquired by those who thus become citizens, in the same manner as by other persons." Taking next chap. 463 of the Act of 1869, which gave full rights of citizenship to these "exceptions," and the Act of 1868, modified by that of 1871, which gave settlement to all "persons" who had heretofore or should hereafter fulfil the conditions thereof, and finally the decision of the Supreme Judicial Court before alluded to, that the right to have and transmit settlement commenced with the completion of the conditions thereof, we are compelled to believe, that, by the enactment of 1871, which was subsequent to complete enfranchisement, it was intended that retroaction should apply to "Indians and people of color heretofore called Indians," natives of our soil, as well as to the ignorant "field-hand" from Southern plantations, or the worst refuse of the foreign immigration.

THE QUESTION OF INDIAN SETTLEMENT.

V.

The foregoing statement is based on the supposition that Love Prince is really an Indian. But we deny that it is so. She is of mixed blood, the African proportion plainly predominating.

Her tribal relations exist by her own volition.

We can find no law compelling her to be an Indian, and therefore an alien.

From her Indian ancestry she has inherited certain landed properties; from her African forefathers she has inherited "rights, privileges, and immunities" as old as the Constitution of Massachusetts, one of which is the right to acquire or derive a settlement.

We know of no law which deprives her of these hereditary rights, and she cannot divest herself of them if she would.

We therefore conclude that Love Prince stands by right in the same position as to settlement as any other real-estate owner in the Commonwealth, and that she has gained a settlement for herself and her posterity by residing three years unaided upon her own freehold.

Respectfully submitted.

H. B. WHEELWRIGHT,
Superintendent Out-door Poor.

SPECIAL SANITARY APPENDIX.

- A. — CIRCULAR TO LOCAL BOARDS OF HEALTH FROM
THE HEALTH DEPARTMENT OF THE STATE
BOARD OF HEALTH, LUNACY, AND CHARITY.
- B. — THE WORCESTER SEWAGE AND THE BLACK-
STONE RIVER.
- C. — THE DRAINAGE OF THE MYSTIC AND CHARLES
RIVER VALLEYS.

DRAINAGE.

CIRCULAR

FROM THE HEALTH DEPARTMENT OF THE STATE BOARD OF
HEALTH, LUNACY, AND CHARITY.

DRAINAGE, ETC.

LOCAL boards of health are reminded, that, at this time of the year particularly, special attention is required to secure cleanliness about dwellings and throughout towns.

No decaying matter should be allowed in cellars. On the contrary, they should be kept sweet and clean, and as much exposed to fresh air and sunlight as possible. They should also be made dry by draining if necessary. It should be remembered that the air of houses is supplied largely from cellars; so that the common practice of storing all sorts of rubbish there should be condemned. If the air of the cellar is impure, it often gives rise to various ailments in the persons breathing it in the rooms above; and not seldom becomes one predisposing cause of such diseases as typhoid fever, diarrhoea, dysentery, cholera infantum, diphtheria, scarlet fever, sore throats, and numberless conditions of ill health which cannot be described under any particular name. If the air in the cellar is damp, neuralgia, rheumatism, and affections of the lungs and other respiratory organs are very apt to follow.

The air supplied to furnaces should never be from cellars, but from the *outside atmosphere*, and, if possible, from a point ten feet above the ground. This is a very important matter in schools, where there would generally be no difficulty in following the best methods. The air-supply should *never* be drawn from shady back-yards, or the vicinity of privies, sink-spouts, etc.

If kept clean and free from garbage, ashes may be used to advantage in filling up low spots of land, making paths, etc.

DRAINAGE.

Garbage should never be allowed to accumulate: all that is not fed to fowls or animals on the place should be kept in tight receptacles, and carried away frequently. Pig-pens should not be permitted in thickly settled places.

There should be no soakage into the ground near wells or houses permitted from stables and barns. It will often be found economical to save all the manure, liquid and solid, by receiving it in water-tight vessels, etc., or mixing it with loam, under cover, and frequently carting it away.

Chamber-slops, and slop-water generally, should never be thrown on the ground near houses. They may be placed directly on the soil of gardens, etc., or pumped up from water-tight cesspools, or be used by distribution under the surface of the soil, in the manner described on p. 334 of the Seventh Annual Report of the State Board of Health,* and now introduced in the town of Lenox, Mass. The chamber-slops alone can be easily disposed of by mixing them with ashes or loam, as at the Pittsfield Hospital, by the method shown on p. 87 of the Ninth Annual Report of the State Board of Health. If the kitchen-slops are discharged directly into a cesspool, care should be taken that the pipes do not get clogged with grease.

Earth-closets serve a good purpose, particularly for sick people and invalids, if *carefully attended to*, and if well-dried loam be used for them in sufficient quantity. They are more easily managed if liquid refuse be kept out of them.

The ordinary privy should be abolished. It is dangerous on two grounds, — 1st, It must be so far from the dwelling as to seriously expose children, particularly during bad weather. 2d, It corrupts the air, the soil, and, consequently, too often the wells. Instead of the common privy-vault, which is not safe even if cemented, it is best to use under the seat some receptacle which can be frequently removed and emptied. Galvanized-iron tubs, tight barrels sawn through the middle,

* These reports may be found in the town libraries, by applying to the selectmen, and in the various public libraries.

WATER-CLOSETS, ETC.

etc., answer the purpose very well. If kept thoroughly disinfected with dry earth or ashes, they can be near houses, connected by passage-ways, and will not corrupt the wells.

If water-closets are used, and there are no sewers, the best disposal of the sewage is by the flush-tank, and irrigation under the service of the soil, as described on p. 135 of the Eighth Annual Report of the State Board of Health. If cess-pools must be used, they should be tight, and often emptied by the odorless process, or else have their contents pumped out on the service of the ground for fertilizing purposes, where that can be done without causing a nuisance. If the sewage is placed on the soil in the morning of a dry, clear day, when the sun is shining, and in places where it may be readily absorbed by the earth, the odors from it are the least offensive. In very loose soil, and remote from dwellings, ordinary loose-walled cesspools may be used without danger for a short time; but even then the custom cannot be approved, for they store the filth too far below the surface to insure its absorption by vegetation, and keep it to putrefy and generate bad gases, which it is next to impossible to prevent from getting into our houses through the drains.

The evils arising from want of attention to the suggestions briefly given above are many; and undoubtedly much ill health can be thus explained. Good water, from deep wells, is much better than rain-water, which is soft, and does not contain the lime, etc., so beneficial to health. If the wells and springs are kept free from contamination, as they may be with some care, until houses and streets become placed closely together, the water furnished by them is of the very best quality. A few illustrations of their baneful effects, when contaminated, are given.

A clergyman living in one of our towns reports as follows: —

“About a year ago, my son, thirteen years old, was taken sick with diphtheria. It was quite a severe case, and was very obstinate, resisting, day after day, all treatment: medicines did not have their usual effect. By and by we thought of the water [which was found upon chemical

WATER-CLOSETS, ETC.

examination to be polluted with organic matter like that found in drains and cesspools]. We immediately stopped using the water, concluding that the impure water was the probable *cause* of the boy's sickness, and the probable *reason* why the medicines would not work; for they had been mixed in this water, and he had used it for a gargle.

"With *change of water* the sick boy at once began to mend, and was soon about the house again. This was the third case of diphtheria in our family within the space of some two years; and they were the only cases in the neighborhood, which led us to suspect something was wrong.

"I had myself been subject to a chronic irritation in my *throat*, often amounting to soreness and serious trouble, and also to frequent attacks of diarrhœa, especially through the warm weather; but for a year past, or *since we ceased to use that water*, I have had no trouble worth speaking of in either of these ways.

"The well is in the *cellar*, almost directly under the sink, three feet only to the right of it. The top of the well is two feet and a half from the cellar-wall. The drain, originally of plank, was sixteen feet long, so that the cesspool was within seventeen or eighteen feet of the well. But this was not the worst feature of the case. This plank drain, after a time, rotted away, so that the filthy water began to soak into the ground just outside the cellar-wall, and within six or eight feet of the well, and almost directly over it. The earth, when we removed it to lay a new tile-drain, was *good manure*, as deep down as we dug, and I know not how much deeper.

"The water looked clear, except just after heavy rains, and had *no ill smell* or *ill taste* about it. We now use cistern-water, and leave the well untouched."

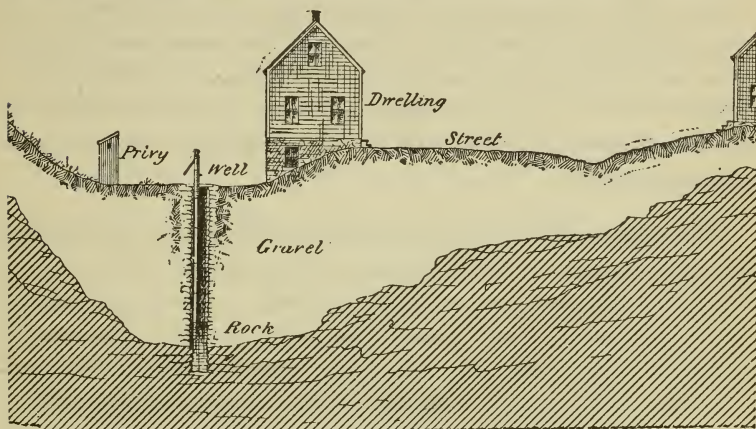
This case shows what great danger to health may exist unsuspected, when the rules suggested above are not followed out. It is impossible to say that a well is safe at any ordinary distance from a source of *constant* pollution of the neighboring soil, like a privy, cesspool, barnyard, etc. Often the filth goes a long distance, sometimes not very far. *There is always a risk*; and, even if well-marked sickness does not occur as narrated above, more obscure affections are probably not uncommon.

Dr. J. G. Pinkham, in his Report on the Sanitary Condition of Lynn, published in the Eighth Annual Report of the State Board of Health, reports the following two cases, the illustrations in which are most clear and convincing:—

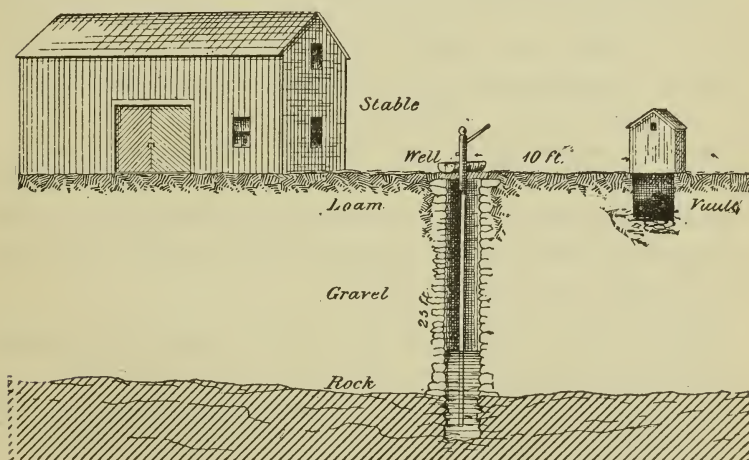
CASE NO. 1. — The diagram explains the position of the well, and shows the certainty of its pollution. The soil and

POLLUTED WELLS.

subsoil are loose; contamination occurs both by surface drainage and from soakage. Five cases of typhoid fever occurred,



in 1875, in the family living in the house, and seven more, with one death, among other persons using the well-water. This house became the centre of infection for a whole neighborhood.



CASE No. 2.—The well is twenty-five feet in depth, a portion of it being dug into the rock. The vault is ten feet distant on the same level. There is a cesspool in the garden below, and a stable on the left. The buildings and well are

POLLUTED WELLS, ETC.

on a side-hill. The premises are kept clean, and the water, which is clear and of good taste, has been used for many years. The occurrence of typhoid fever in the family led the physician in attendance to suspect the water, which, upon chemical examination, proved to be very much contaminated. There were five cases of typhoid fever in the family, and several others, with one death, among neighboring persons using the water.

Even where wells are not in use the corruption of the air from foul privies, and by the emanations from the soil of the products of decomposition of filth, becomes a prominent factor in the spread of such diseases as typhoid fever, dysentery, diarrhoea, diphtheria, etc. In towns sources of filth on some premises may be more injurious to the health or more offensive to neighbors than to the occupants of the place itself. Different people are differently susceptible to disease, too; so that the filthiest places are not always necessarily those where there is most sickness.

A marked illustration of disease *due to polluted air*, when the drinking-water was pure, occurred in a school in this State in 1864, where fifty-one out of seventy-seven young ladies in the institution were attacked with typhoid fever, of whom thirteen died. Three servants also died of the fever. The vaults of the privies were shallow, filled to overflowing, and emitted a very offensive odor, which at times pervaded the whole building. The kitchen-drain discharged its contents on the surface of the ground, and a few rods from the school there was a foul barnyard.

Where filth has accumulated, and it is necessary to use a disinfectant, or if for other reasons it is desirable to do so, earth, lime, or chloride of lime will serve a good purpose. If it is wanted in liquid form, it may be made by adding to a pailful of water three pounds of copperas (sulphate of iron), with a pint of Calvert's carbolic acid; one pound of chloride of lime, or one-half pound of lime.

For use inside of houses, a solution of nitrate* of lead or

* One part in one hundred of water. Cloth soaked in such a solution, and hung up in a foul air, quickly destroys bad odors.

POLLUTED WELLS, ETC.

chloride of zinc* (Burnett's disinfecting fluid) is recommended. *Whitewashing* in cellars, sheds, etc., is a most excellent means of purifying the air. *Prevention of the accumulation of filth*, however, is better than the use of disinfectants. "To chemically disinfect (in the true sense of that word) the filth of any neglected district, to follow the body and branchings of the filth with really effective chemical treatment, to thoroughly destroy or counteract it in muck-heaps and cesspools and ashpits and sewers and drains, and where soaking into wells, and where exhaling into houses, cannot be proposed as physically possible; and the utmost which disinfection can do in this sense is apparently not likely to be more than in a certain class of cases to contribute something collateral and supplementary to efforts which mainly must be of the other sort" (*prevention of filth*).

It is in the highest degree important that each town should have an *independent board of health* to devote their attention to these matters. It is desirable that *at least two-thirds* of such a board should be composed of persons not otherwise connected with the town government, and that there should be at least one physician on the board.

FOR HOUSE-DRAINS WITHIN THE WALLS.

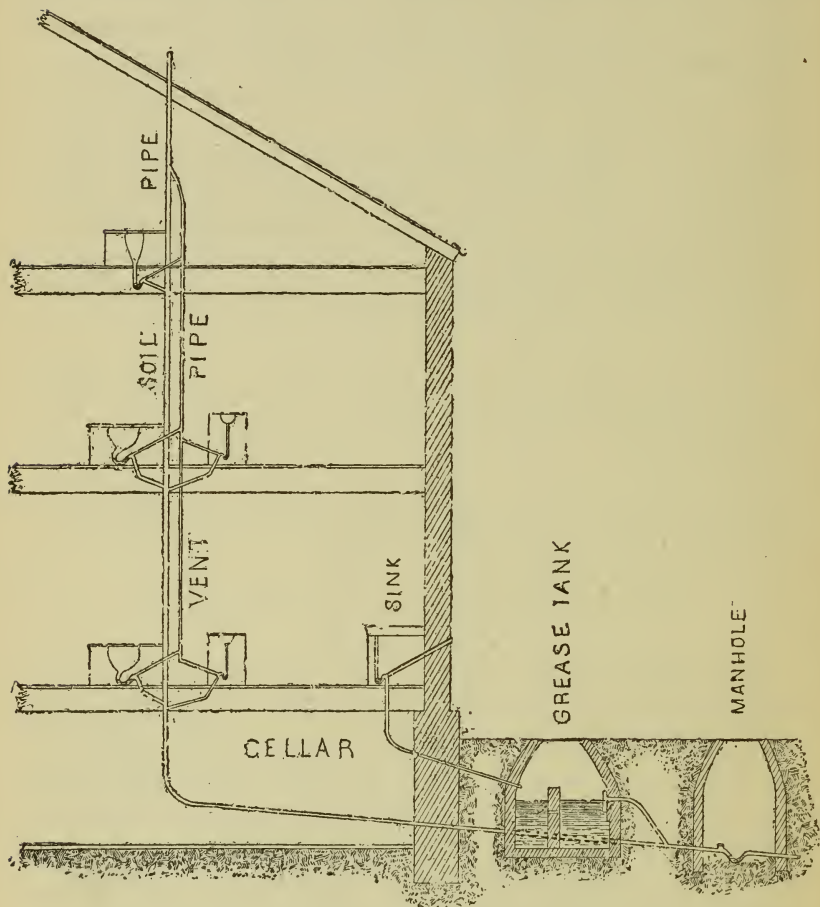
[See cut on following page.]

(a) All drain-pipes inside the house should be of metal, and all joints of well-calked lead or solder. Metal is recommended in preference to stoneware, owing to the difficulty in keeping tight the joints of the latter. All connections between lead and iron should be by a calked brass nipple and solder. It is best to keep drain-pipes in sight, or at least of easy access. They should never be *hidden* under the ground. If needed below the basement or cellar floor, they should be placed in a trench lined with brick walls, with movable covers on the trench. It is a good plan to paint the pipes white, so that any slight leakage of gas may be seen readily; for such gas generally discolours the paint.

* One part in two hundred of water for foul liquids, etc. This is used by order in the German navy for *bilge-water*. Labarraque's disinfecting fluid (chlorinated soda), one part to four of water, may be used with soap in washing floors, etc.

HOUSE-DRAINS.

(b) Changes of direction in iron pipes should be made mostly by Y-branches, leaving an open hub, to be closed by a brass nipple calked in with a movable brass clearing-screw as large as the drain, to be removed for inspection and clean-



ing. In straight reaches of fifty feet or more in length, these Y-branches and clearing-holes should be introduced at intervals of not over forty feet.

(c) No T-branches should be allowed, except in vertical pipes.

(d) All pipes should be put together by a series of straight lines, and with a general direction as straight as possible.

HOUSE-DRAINS AND TRAPS.

(e) All pipes should have a fall of not less than two per cent of their length, where no special apparatus is provided for flushing. All drains should be kept free from deposit; and, if this cannot be effected without flushing, special apparatus should be applied for this purpose.

(f) A trap should be placed on the main drain outside the house-walls, made of glazed earthenware, with a vent-hole as large as the pipe directly above the trap, communicating with the open air (as shown in the cut). This should be made accessible for cleaning out, and a rain-spout had best be discharged into it or into the drain at some point above it. This trap should be near the house, and can be alongside the grease-tank, if convenient.

(g) Every separate stack of soil or waste pipe within the house should extend out through the roof, at least four inches in diameter: smaller pipes than this are liable to be choked with ice from condensation of steam in winter.

(h) Separate traps should be placed under all receptacles of drainage, as close to them as possible, and no other traps allowed to intervene between these and the outside or main trap described above (f). Each one of these separate traps should have an air-pipe of iron or lead connected just below the water-seal, as large as the waste-pipe, and either connecting at its upper end with the soil-pipe above all other branches, or passing through the roof independently, as found most convenient. Several traps can be served by the same vertical line of vent-pipe, as shown in the cut.

(i) No drain-pipe from any safe-pan under any tub, sink, bowl, or water-closet, should be connected below to the drain system, but should discharge over an open sink or cellar floor.

(j) No waste-pipe from an ice-chest or refrigerator should be connected with the drains.

(k) Rain-water leaders should not be used as soil or drain pipes, nor should they be depended on to ventilate drains. If connected with the drains at all, care should be taken to so connect them below the water or some trap, otherwise supplied with water, unless their upper ends are remote from windows.

HOUSE-DRAINS AND TRAPS.

(*l*) A tank or small cistern should be provided in the upper part of the house, from which the kitchen boiler should be supplied, together with the bowls and sinks, also any water-closets that happen to be close by. The drinking-water should not be drawn from this tank, but from a separate tap on the supply-pipe direct from the street main. The overflow of this tank should not be connected with any drain, but discharge as directed for safe drains above (*i*). It is common in mild climates to discharge such pipes through the house-wall into the open air; but this plan would be worthless in frosty climates.

(*m*) All water-closets should be supplied by a small tank directly above them, and not by valves attached to the closets themselves, nor by pipes branched from those from which drinking-water is drawn.

(*n*) Concentrate the fixtures used for drainage — such as water-closets, bowls, sinks, tubs, etc. — as nearly as possible in vertical groups, to avoid waste-pipes passing across under floors, which are rarely satisfactory.

(*o*) Never locate a fixture, especially a water-closet, in a dark corner where a good ventilation cannot be had. If outer air cannot be got, seek to draw off the foul air from the closet by a pipe leading up through the kitchen-fire flue to the chimney-top, built into the chimney for the purpose, at least four inches in diameter. Small pipes branched into the fire-flues for this purpose soon get choked with soot at their mouths, and become worthless, unless extending quite to the top of the chimney.

Boards of health and selectmen of towns are particularly requested to direct the attention of proprietors of country hotels and boarding-houses to this circular, for which purpose extra copies will be sent upon application to the Health Officer of the State Board of Health, Lunacy, and Charity.

BOSTON, 12th May, 1881.

WORCESTER SEWAGE.

B. — THE WORCESTER SEWAGE AND THE
BLACKSTONE RIVER.I. — REPORT OF THE BOARD'S COMMITTEE OF
EXPERTS.

BOSTON, Nov. 17, 1881.

To the State Board of Health, Lunacy, and Charity.

In conformity to the vote of the Board, July 23, 1881, —

That Dr. C. F. Folsom, Joseph P. Davis, Civil Engineer, of New York, and Dr. H. P. Walcott, Health Officer of the Board, be requested to examine and consider the question of the disposition of the sewage of the city of Worcester, especially with a view to prevent the pollution of the Blackstone River and its tributaries, and report to this committee, —

We have the honor to submit the following report: —

The population of Worcester was, by census, 22,286 in 1855, 24,960 in 1860, 30,055 in 1865, 41,105 in 1870, 49,317 in 1875, and 58,291 in 1880. These figures show an average increase for each five years of a little over 20 per cent, and warn us, that, in designing works for the disposal of the sewage of the city, ample provision should be made for its future growth.

The populated area of the city is now 2,967 acres, of which 1,300 are already sewered; the total length of the sewers, exclusive of the Mill Brook Conduit, being 36 miles.

The average rainfall is 48 inches* annually. The mean temperature (F.) at two points in the State for ten years is as follows, the extremes being from a little over 100°+ to several degrees below zero: —

MONTHS.	CAMBRIDGE	AMHERST.	MONTHS.	CAMBRIDGE	AMHERST.
	Ten Years, 1868-77.	Ten Years, 1868-77.		Ten Years, 1868-77.	Ten Years, 1868-77.
January . .	25.3	24.2	August . .	69.6	69.1
February . .	25.2	24.5	September . .	60.9	60.0
March . .	31.4	31.4	October . .	49.8	48.4
April . .	43.2	44.3	November . .	37.4	37.3
May . .	55.6	55.0	December . .	27.5	26.2
June . .	66.6	67.3			
July . .	72.3	71.1	Average . .	47.1	46.6

* The extremes in Boston from 1849 to 1875 were 40.3 and 67.7 inches.

THE BLACKSTONE RIVER AND THE WORCESTER SEWAGE.

The ground freezes from three to five months in the year to a depth varying from one foot to five feet; the snow covers the ground from a few weeks to three or four months, from one foot to three feet deep.

The eastern and most thickly built portion of the city is drained by a considerable stream, called Mill Brook, which, flowing almost due south, empties into the Blackstone River a little above the village of Quinsigamond. This brook receives, along its course, nearly the whole of the sewage of Worcester, brought to it by 44 different sewers. Its drainage area above Lincoln Square is about 8 square miles; above Cambridge Street it has a drainage area of about $12\frac{1}{2}$ square miles. Its average daily dry-weather flow at Cambridge Street, exclusive of sewage, for four months of the year, may be stated at about 3,500,000 gallons, and its minimum daily flow for a single month at 750,000 gallons.

The average gauged flow at Lincoln Square for 79 days in the summer of 1871 was 4,198,000 gallons daily. The flow in times of great freshets may reach the enormous quantity of 1,000,000,000 gallons in 24 hours; but the greatest noted discharge (at Pond Street) was at the rate of 110,000,000 gallons.

The average daily flow for the year is about 13,000,000 gallons.

From the above statement it is evident that, to make practicable any scheme for utilizing or purifying the sewage, it must be intercepted before it reaches the brook.

No extended or reliable gaugings have been made of the dry-weather flow of the sewers. The sewer which enters the brook at Cambridge Street drains what are known as the Island and Piedmont Districts, having a total area of about 670 acres. Mr. Phinehas Ball, former city engineer, in a report made to C. D. Morse, Esq., in this year, estimates the dry-weather flow at about 800,000 gallons daily; and in his opinion, when the Island District is more completely sewered, it will be increased to 1,000,000 gallons. Rough float-gaugings, taken in 1875 from Aug. 26 to Sept. 2, showed the average daily flow of that period to be 1,300,000. The maximum daily flow for that period was 1,463,256 gallons;

THE WORCESTER SEWAGE ANALYZED.

and the minimum, 1,135,872 gallons. For the purposes of this report, it is assumed that the dry-weather flow of the sewers of the city is at present 3,000,000 gallons per day, 2,000,000 gallons of which empty into Mill Brook above Cambridge Street, and 1,000,000 gallons at Cambridge Street. Twenty-eight hundred * houses are connected with the present sewers; 4,000 * houses are not connected. There are 26 woollen and cotton mills, beside a few iron-works, saw-mills, grist-mills, a tannery with shambles on the river and its tributaries above the sewer outlet. About 50 gallons of the water-supply are used per individual.

So many samples of the sewage of Worcester were examined by the State Board of Health in 1872, that it is not necessary to repeat the analyses.

Of 27 samples collected from three sewers on eleven different days at six A.M., nine and twelve P.M., the average proportions were, in parts per 100,000, solid residue, 15.29; ammonia, 0.745; albuminoid ammonia, 0.144; chlorine, 3.1. Of 27 samples collected at nine A.M., twelve M., and six P.M., the average was, of solid residue, 25.35; ammonia, 1.876; albuminoid ammonia, 0.316; chlorine, 4.17. The mean of 12 of the first set of samples showed phosphoric acid, 0.1940; and of 12 of the second set, phosphoric acid, 0.6564.

The averages from 50 English cities and towns were, in parts per 100,000, solid residue, 72.2; ammonia, 6.703; chlorine, 10.66. We have, therefore, 3,000,000 gallons of sewage to deal with daily, which the chemical analyses just quoted show to be about twice as dilute as the sewage of English towns, mixed with a brook, whose daily flow ranges from 1,000,000 to 40,000,000 gallons, not including extremes in a rapidly growing city.

Chemical analyses of the water supplied to the river before and after pollution by the sewage of Worcester, made in 1875, showed the following results in parts per 100,000:—

* Approximately.

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	Ammonia.	Alb. Ammonia.	Solid Residue.	Chlorine.
City Reservoir	0.0107	0.0213	4 20	0.18
Mill Brook	0.9600	0.1109	23.44	3.80
Blackstone River, at the sash factory	0 0992	0.0307	8.04	0.92
Blackstone River, below Black- stone Mills	0.0099	0.0139	4.80	0.38

Mill Brook, with its accumulated sewage, empties into the Blackstone River at a point about three miles above the more thickly populated portion (the village) of the town of Millbury. The river flows parallel to and alongside of the main road connecting Millbury with Worcester, and at a point about midway is ponded by a dam. Here a considerable portion of the solids held in suspension are deposited, and a nuisance is created. In the town of Millbury are a number of dams, at each one of which some further deposition occurs; and along the whole course of the stream for some miles below Worcester putrefaction of the organic constituents of the sewage takes place (most rapidly in the summer months), and, as a consequence, offensive gases are liberated, which are largely the cause of complaint of this method of disposing of the sewage.

The deposits undoubtedly stimulate and increase the growth of aquatic plants, and are thus, as well as by their own bulk, hastening the process of filling up the ponds. This, too, is a cause of complaint by the Millbury mill-owners. It is a belief of the people dwelling on and near the banks of the stream, that a perceptible injurious effect upon the general health has been produced, and this belief is shared in, to some extent, by the resident physicians.

That the stream at times is very offensive is quite evident, and that this, in connection with the gradual filling up of the ponds, will soon depreciate the value of property in its vicinity, unless some other than the present method of disposing of the sewage of Worcester is adopted, is beyond question. It should be stated, however, that a not inconsiderable portion of the pollution of the river below Millbury is

THE BLACKSTONE RIVER AND THE WORCESTER SEWAGE.

contributed by the mills of that town situated on the main stream, and on Singletary Brook.

The stream four miles below the sewer-outlet is unmistakably polluted; twenty-five miles down, the impurity is all but lost to chemical tests. At Millbury the water is unfit for the nicer manufacturing processes, and for boilers, and at times is decidedly offensive.

During the summer of 1881 the following analyses of water, taken in quite dry weather, made under the direction of Professor E. S. Wood, are compared with others in 1872 and 1875 by Professor W. Ripley Nichols in the State Board of Health Report:—

EXAMINATION OF BLACKSTONE RIVER.

Examination of Blackstone River.

(Parts per 100,000.)

	Date.	UNFILTERED.			RESIDUE.		
		Ammonia.	Alb. Ammonia.	Chlorine.	Fixed.	Volatile.	Hardness.
Average of 11 samples, Mill Brook, at Cambridge Street	1872. Oct.	0.3430	0.2290	2.74	—	—	14.90
Average of 12 samples above sewers, Mill Brook .	—	0.1970	0.1800	1.62	—	—	15.71
Mill Brook, near river	1875. July	0.9600	0.1109	3.80	—	—	23.44
Blackstone River, near sash factory	—	0.0992	0.0307	0.92	—	—	8.04
River, near Blackstone Mills	—	0.0099	0.0139	0.38	—	—	4.80
River, below dam at Blackstone	—	0.0157	0.0163	0.36	—	—	4.60
Blackstone River, bridge below Perry's Mills, Quinsigamond	1881. Aug. 30	0.9360	0.0858	2.90	5.00	7.50	12.50
Blackstone River, bridge below Perry's Mills, Quinsigamond	Sept. 6	0.3360	0.0882	3.10	8.40	4.00	12.40
Blackstone River, bridge below Perry's Mills, Quinsigamond	11	0.0094	0.1606	3.30	13.30	11.00	24.30
Above Burling Mills	Aug. 30	0.0746	0.0470	2.10	4.00	5.50	9.50
Above Burling Mills	Sept. 6	0.1814	0.1168	3.20	9.50	0.80	10.30
Morse's Mill-pond	Aug. 30	0.0720	0.0690	2.80	8.80	0.90	9.70
Gowan's Bridge	30	1.1880	0.0334	2.20	9.00	1.90	10.90

EXAMINATION OF BLACKSTONE RIVER.

	Sept.	6	0.0013	0.2906	4.60	10.00	3 90	13.90	6°
Gowan's Bridge	Aug.	30	1.3230	0.1364	3.00	8.00	4.60	12.60	4°
Above Cordis Mills	Sept.	6	0.0315	0.0264	1.10	5 50	2 10	7.60	1°
Blackstone River, above Worcester sewage			0.0880	0.3910	7.30	22.10	12 00	34.10	8°
Mill Brook, with sewage at Cambridge Street	Oct.	2	0.1440	0.0486	1.90	8 30	3.70	12.00	2½°
Singletary Brook		2	0.0112	0.0458	0.60	2 50	5.80	8.30	1½°
Blackstone River, below Singletary Brook		2	0.1546	0.0332	1.80	7 60	3.70	11.30	2½°
Blackstone River, above Singletary Brook		2	0.0866	0.1662	2.00	10.80	5.80	16.60	3°
Below Boston and Albany Railroad, and above Fox Village		27	0.5060	0.1100	5.20	21.90	5.10	27.00	9°
Junction of Mill Brook and Piedmont sewer		27	0.6400	0.2400	8.30	26 30	12.50	38.80	8°
Lynde Brook, above South Worcester Wire Mill and below Worcester Carpet Company		27	0.0370	0.0210	0.80	3.40	0 90	4.30	1°
Mouth of sewer at Quinsigamond Village		27	0.9100	0.1700	9.30	30.40	7.00	37.40	8°
Above Burling Mills		27	0.3070	0.0370	2.90	9.20	2 20	11.40	3°
At Morse's Bridge, in front of factory		27	0.0470	0.1410	2.90	8.40	3.70	12.50	3½°

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Comparing the results from the several examinations in 1881 with these of the State Board of Health in 1872, it is clear that the pollution of the stream has increased since that time. As compared with the chemical examinations made by the Board in 1875, there is also an increase, although much less marked. The sewage deposits have been to a certain extent swept away by freshets from time to time, and have not been augmented, except possibly above the dam of the sash factory in Millbury, so considerably as to be of themselves the nuisance that might have been expected.

Considering the extreme heat and cold of the climate, the heavy rainfall, and the great dilution of the sewage, the difficulties in the way of a satisfactory disposal of the sewage of Worcester are far beyond those of any other town where the question has already been met: so that any scheme that may be proposed may be said to be experimental to a certain extent; and to be successful, and not create a greater nuisance than it abolishes, it must be costly in the original outlay, and involve also a considerable yearly expense.

Various methods of preventing the excessive pollution of streams have been adopted or experimented upon in England. They may be classified as follows:—

1. Simple subsidence in tanks.
2. Chemical treatment or precipitation in tanks.
3. Filtration through artificial filters.
4. Intermittent filtration through natural soil.
5. Broad irrigation.

The first and third are very generally abandoned. They simply remove floating solids, leaving all the putrescible solubles to beget a nuisance when putrefaction begins.

The second method produces an effluent which may be allowed to enter most streams that are not afterwards used as a source of water-supply, and is one that a number of towns are constrained to adopt for want of land proper for filtration or irrigation. It removes all the solids, and a small percentage of the soluble elements; and the chemicals used in the various processes tend to fix the remaining putrescible elements in various degrees. Over sixty different precipitation processes have been proposed.

TREATMENT OF SEWAGE IN ENGLAND.

The cheapest one is that known as the lime process, in which about one ton of lime is added to each million of gallons of sewage of the English standard of dilution.

The sewage is then allowed to flow over very slowly through a series of carefully constructed tanks in which the floating solid matter, and that produced by the chemical action of the lime, are deposited, forming what is technically termed "sewage sludge." When the sludge has accumulated to a few inches in depth, the supernatant liquid is carefully drawn off, and allowed to flow over irrigation fields or into the neighboring stream. The sludge, consisting in this state of 90 per cent of water, is removed (usually by pumping), and is finally disposed of in some way. After being exposed to the air for a year in the climate of England, it still contains 70 per cent of water.

It may be allowed to accumulate on the land, or it may be dug into the soil to serve as a manure. It is usually given away, or sold (if possible) when partially dried. It is sometimes artificially dried at great expense, when its bulk is so reduced that it becomes a salable manure.

In some towns in England the farmers pay a shilling or two a ton for the air-dried sludge at the leisure time of the year; in others they will not cart it away when given to them.

There are many other chemicals than lime in use in the precipitation processes, most of which produce a slightly better effluent, and a more valuable sediment (if a comparison of the value of materials that are practically worthless may be made), and much less of it. In these respects they are to be preferred; but under most circumstances they are more costly. Where the sludge can be allowed to accumulate without causing a nuisance, the lime process will usually be adopted, although the effluent still contains a considerably greater portion of the putrescible element than in other processes.

Where possible, this effluent should in all precipitation processes be passed through the soil before entering the stream.

For the treatment of the dry-weather sewage of Worcester,

SPECIAL SANITARY APPENDIX.

we may assume, in the absence of actual experiments, that between two and three tons of lime per day would be required; that from forty to sixty tons of wet sludge, with 90 per cent of water in it, will be produced daily; and that the cost, exclusive of interest on cost of works, would be from \$10,000 to \$15,000 per year. This is under the assumption that the sludge is allowed to accumulate, or is given away. It is not probable that it could be sold, unless first treated by some process, which would be at a loss.

To create no nuisance in hot weather by any precipitating process is simply impossible; but the stench need not at any time be a serious matter to the town if the works are a mile or two distant. It can safely be said that nothing but a large expenditure originally, extreme care, and a liberal appropriation each year will prevent a nuisance from being established, if this method be adopted. The resulting "cleansed" water, not having removed from it the soluble filth, decomposes, and creates offensive smells, unless still further purified by running it over land in irrigation. The whole process is quite incomplete, so far as purification of streams is concerned; and on account of its much greater expense than that of irrigation is justifiable only where something must be done, and enough land cannot be got for irrigation.

The fourth method, or that of intermittent filtration, is usually employed, when at all, as an auxiliary to broad irrigation.

It consists, *per se*, in passing intermittently as large volumes of sewage through carefully prepared land as can be made to pass and produce a satisfactory effluent. In most cases, where any considerable area is acquired for the purpose, the net loss is diminished by cultivating crops, as that cannot be done where the greatest amount of sewage that can be filtered is used.

The land, no matter how porous naturally it may be, is thoroughly underdrained; and to get the best results the surface must be shaped to level terraces. If crops are to be grown, it should be further prepared in ridges and furrows, — the former for the growth of the crops, the latter for the distribution of the sewage to their roots.

REPORT OF EXPERTS ON THE WORCESTER SEWAGE.

Intermittent downward filtration has been adopted in Merthyr Tydvil in Wales; but it has been there abandoned in favor of ordinary surface irrigation and modified intermittent downward filtration, as no crops of value could be raised where the amount of sewage per acre (100,000 gallons daily) is so great. It is very seldom that land can be found porous enough for that method of disposing of sewage, there being only one town (Kendal in England) where any considerable quantity of sewage (nearly a million gallons daily on five acres) is now treated to the full extent in that way. Intermittent downward filtration differs from ordinary sewage irrigation simply in the extremely porous character of the soil selected, in the great amount of sewage used per acre, and in the abandonment of any attempt to raise crops of any real value; although, by taking more land than was at first designed by Denton, the amount of sewage used to each acre may be so moderate in amount that excellent crops can be raised: and this has actually been the practice in several towns that have recently adopted intermittent downward filtration in England, of which Abingdon is perhaps the best illustration.

The theory of the process is well described in the report of the English Rivers Pollution Commission, that such a filter is not a mere mechanical contrivance: it is a machine for oxidizing, and thus altogether transforming, as well as for merely separating, the filth of dirty water. A field of porous soil irrigated intermittently virtually performs an act of respiration, copying, on an enormous scale, the lung-action of a breathing animal; for it is alternately receiving and expiring air, and thus dealing as an oxidizing agent with the filthy fluid which is trickling through it. A sufficient extent and depth of porous soil having periodical intervals of rest, during which the soil drains itself, and becomes refilled with air, certainly must be the best possible strainer, oxidizer, and filterer of water containing nauseous organic impurities, both suspended and dissolved.

At Quinsigamond there is an area of land fairly well suited for modified intermittent filtration of sufficient extent to dispose of all the sewage of Worcester, as will be seen by refer-

SPECIAL SANITARY APPENDIX.

ence to the accompanying map. The results of this method, so far as the quality of the effluent is concerned, will be quite satisfactory; and, without doubt, the yearly loss will be very much less than with the precipitation process. If intelligently managed, the crops should partly repay the cost of labor and pumping, and possibly also in good years the whole of it, inasmuch as we propose distributing only 40,000 gallons of sewage to the acre, or one-fifth as much as is the practice in Kendal, but about twelve times as much as could be used in ordinary surface irrigation.

The fifth method, or that of broad irrigation, is used with more or less modification, in varying degrees of efficiency, in nearly fifty towns of Great Britain, for about one-eighth of the sewage of the city of Paris, as an important part of the completed portion of the sewerage of Berlin, Stuttgart, and Brussels, and for the disposal of the whole of the sewage of Dantzic in the porous beach-sand of the shore of the Black Sea. In no place is there a pecuniary gain from the operation where the sanitary portion of the problem is fairly solved. The yearly deficit varies in Great Britain from a few hundred dollars, or the value of the time of the person directing it, in small towns, to several thousand dollars in the larger places. In Paris and Dantzic it has been impossible for us to get at the profit or loss of the sewage-farming, but the process taken as a whole is quite satisfactory in both those cities.

In Dantzic the contractors for the sewerage of the city were required, as part of their agreement, to dispose of the sewage by irrigation for a period of years. The sewage of Paris constituted from one-twelfth to one-fifteenth of the dry-weather flow of the Seine, being also unusually offensive, and with an excessive amount of solid deposit, so that the nuisance was so great as to demand even a costly remedy.

A light loam with a subsoil of gravel is best adapted to the purpose of sewage-irrigation, and three hundred acres of it may be made to sufficiently cleanse 1,000,000 gallons of sewage daily. With that quantity, however, it would be often necessary to pour the sewage on the land when the soil was already wet enough, or even too wet, for the crops,

SEWAGE-FARMS.

so that agricultural loss would be the result; and in heavy rains it would not be always possible to purify at all the sewage, which would simply flow over the land to the nearest stream.

With less than three hundred acres of land to every million gallons of sewage, any crops but grass might be almost ruined in a wet season, unless the excess of water and some of the sewage could then pass into some stream; and it must be a matter of experiment whether there would be any nuisance in case of an extremely hot day following a long-continued rain. To fully satisfy the agricultural part of the problem, one thousand acres should be provided for each one million gallons of daily sewage, although a fair result may be got with a far less area. At best, no one plot of land should be irrigated more than one day in eight in favorable weather. In time of wet soil, any crops except coarse grass, of course, would be injured by pouring additional water upon the ground; and the quantity of coarse grass that can be raised on a sewage-farm with profit is limited to the amount that may be cut and fed fresh to live stock. A dairy farm is the best use possible of sewage-irrigated land, if it be near a large city where milk finds a ready sale.

On an ordinary sewage-farm all crops may be raised. A large hotel in Paris is supplied with fruits and vegetables of the best quality from the sewage-farm at Gennevilliers, and, commonly speaking, the products of them find ready sale.

All sewage-farms that are not managed with care are nuisances. There should never be excessive nuisance; and offensive odors can be avoided in the climate of England, as they can probably also be prevented here, if sufficient land is available.

The best practicable treatment of the difficulty is upon the principle adopted for Paris; and this can be made satisfactory from all points of view, except that of profit. The plan consists in having a large tract of land upon which the sewage may be poured when that is for the advantage of the crops, and in being able to dispose in some other way of all that is not wanted on the farms.

This other way in Paris now consists in dumping it into

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the river Seine. By the new plan it will be conveyed to an immense uncultivated tract of land owned by the State. Neither of these methods would be available for Worcester. We know of no other scheme so practicable as being able to provide for all the ordinary sewage by modified intermittent downward filtration, and procuring several hundred acres, upon which surface irrigation may be attempted, and extended from year to year.

Probably there is hardly another place in the State where the conditions of the problem can be so readily met as in Worcester, to remedy an evil which is fast becoming a general one in Massachusetts. Whatever may be the means adopted to purify the sewage, the first step must be to separate it from the very great, but extremely variable, amount of water uniting with it in the brook, and to provide for the direct discharge of storm-overflows into the stream, thereby involving a considerable outlay of money in so changing the present sewerage system of the city as to fulfil these requirements.

An exact comparison of the annual cost of the precipitating system and of sewage-irrigation is not practicable; the actual facts in these respects, wherever either has been adopted, having been almost always disappointing when compared with the estimates. The difficulties which must be met are new, and their cost must be decided largely by experience. Probably the annual loss by precipitation would be between ten thousand and five thousand dollars. A favorable view of irrigation in Worcester would be that, in the best years, with skilful and economical management, there might be no loss beyond the interest on the cost of the works, and that at most the deficit can hardly be over six thousand dollars a year, pumping included.

To properly dispose of the present sewage of Worcester by irrigation would require nine hundred or a thousand acres of land, which would need to be increased in the near future. Unfortunately so large an area of suitable soil conveniently located is not at command except by expensive pumping. We have therefore considered broad irrigation only in connection with modified intermittent filtration, and simply as a

THE WORCESTER SEWAGE.

possible means, to be determined by experiment, of reducing the net yearly loss to the city in disposing of its sewage by the latter process.

We therefore recommend, as the most practicable and least expensive method of disposing of the sewage of the city of Worcester, intermittent downward filtration upon so large an area (75 acres) that the sewage daily distributed per acre (40,000 gallons) will not be large enough to prevent the successful raising of crops.* Ordinary surface irrigation may be applied by private parties so far as that may be of benefit to the crops; the filtering ground, however, always being sufficient to dispose to all the sewage, whether the farmers in the vicinity choose to make use of any of it or not.

As has already been pointed out, to make the success of any method of purifying the sewage of Worcester at all probable, it will be necessary to intercept the sewage of Mill Brook Valley before it is discharged into the brook, as the natural flow of the latter is much too large to be dealt with. After careful consideration, we have concluded to recommend a separate system of sewers for the valley.

This work is incidental to all the schemes herein discussed. By it all the sewage proper of the Mill Brook Valley would be brought to Cambridge Street at the point where that street crosses the brook. At this point nearly all of the drainage of the remaining portion of the city now sewered empties into the brook, as here terminates the main sewer in Quinsigamond Avenue, which drains the Piedmont and Island Districts. In fact, it may be said that here, practically, the whole sewage of the city is concentrated. This fact determines the direction in which space must be sought for the utilization or purification of the sewage, and somewhat simplifies the problem.

A mile below Cambridge Street is that division of the city called Quinsigamond, and in Quinsigamond there is found land favorable either for intermittent filtration or for the disposal of the sludge produced by the precipitation process,

* Very extended descriptions of the various plans of disposing of the sewage of towns are given in the Fourth, Seventh, and Eighth Annual Reports of the State Board of Health, with maps of several of sewage-farms, so that it will be superfluous for us to go into that matter again extensively in this.

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and in the vicinity is a somewhat limited area that may be availed of for broad irrigation.

The Precipitation Scheme.

There are a number of points below Washburn & Moen's wire-works where precipitation tanks might be built; but, taking into consideration that the tanks should be remote from inhabited and growing districts, and that land favorable for the disposal of the sludge should be convenient to them, the best location appears to be at the point marked A on the accompanying map.

An outfall-sewer, three and one-half feet in diameter, with a grade of one in two thousand, capable, when running full, of conveying about 13,000,000 gallons in twenty-four hours, is to be built from Cambridge Street to the tanks on a line substantially as shown on the plan. It crosses Blackstone River in an iron pipe a little above the dam of Washburn & Moen's mills.

The main sewer of the separate system of Mill Brook Valley is to be brought to its upper end by an iron pipe under Mill Brook; and the sewer draining the Piedmont and Island Districts will be diverted directly into it, having, however, a storm-overflow into Mill Brook.

A series of settling-tanks and the necessary machinery for grinding and mixing the lime, and for handling the sludge, is to be provided at the point A. (See map.)

The approximate estimate of the cost of this scheme is as follows:—

Separate system of sewers in Mill Brook Valley . . .	\$181,500 00
Outfall-sewer, including iron pipe, etc. . . .	62,900 00
Tanks, machinery, and buildings	55,000 00
	<hr/>
	\$299,400 00
Add 10 per cent for engineering and contingencies . . .	29,940 00
	<hr/>
	\$329,340 00
Land and land damages	14,500 00
	<hr/>
Total	\$343,840 00

THE INTERMITTENT FILTRATION SCHEME.

The Intermittent Filtration Scheme.

To reach the land that it is proposed to utilize for filtration, it will be necessary to pump the sewage of the Piedmont and Island Districts a height of about seven feet. The estimate therefore provides for a pumping-station at Cambridge Street with horizontal non-condensing engines and centrifugal pumps. The sewage of Mill Brook Valley can be brought to this point at an elevation that will allow it to flow into the outfall-sewer without pumping. From Cambridge Street, the outfall-sewer, 42" in diameter, follows the same route (but at a higher grade) as in the precipitation scheme, and terminates in a small subsiding-tank, as shown at A on the plan.

The estimate covers the expenses of thoroughly sub-draining the filtration land to a depth of six feet, the cost of leveling and preparing the surface, clearing and grubbing, and of building a complete system of carriers. It is as follows:—

Separate system of sewers	\$181,500 00
Pumping-station	17,500 00
Outfall-sewer, including iron pipe, etc.	55,300 00
Subsiding-tanks	9,500 00
Preparation of land for filtration	72,100 00
	<hr/>
	\$335,900 00
Add 10 per cent for engineering and contingencies	33,590 00
	<hr/>
	\$369,490 00
Land and land damages	39,000 00
	<hr/>
Total	\$408,490 00

The estimated yearly cost of pumping is \$3,500.

This scheme is complete in itself, and makes ample provision for the purification of the sewage of Worcester; but should it be thought advisable to supplement it with broad irrigation, with a view to a more complete and better utilization of the sewage, the cost and preparation for irrigation should be added to the above estimate. It would require a more thorough study of the land than we have thought it necessary to bestow, to make a close approximation to this cost; but it may be stated roughly as \$100,000.

(Signed)

CHARLES F. FOLSOM, M.D.
JOSEPH P. DAVIS, C.E.
HENRY P. WALCOTT, M.D.

II.—REPORT FROM MILLBURY.

MILLBURY, Dec. 15, 1881.

CHARLES F. DONNELLY, Esq.,

Secretary of the State Board of Health, Lunacy, and Charity.

Dear Sir,—Your communication of the 22d of July, to the selectmen of Millbury, was by them referred to the undersigned, a committee appointed by the town some years since to take into consideration and report upon the matter of the pollution of the Blackstone River by the Worcester system of sewerage. By subsequent votes of the town, this committee has been given full power to act for and represent the town in the matter. In compliance with the request (contained in your communication above referred to) “to furnish evidence of experts and others for the information of the Board,” we engaged the services of George E. Waring, jun., of Newport, requesting him to investigate the matter, and furnish us with a plan, to be presented to your Board, for disposing of the sewage of the city of Worcester, so as to prevent the pollution of the Blackstone River; having in view economy in original outlay and subsequent care, effectiveness in results, and the least injury by loss of water to the industries below dependent upon the water-power of the river. The result of his investigation, and his recommendations, embodied in a paper entitled “A Project for the Purification of the Sewage of Worcester,” and the accompanying plans transmitted herewith, we respectfully submit for the consideration of your Board. We understand that plans, similar to that proposed by Col. Waring, are in use at the present day at other places where it has been found necessary to prevent the pollution of rivers; and the probability of obtaining satisfactory results may be inferred from the success attained where such a plan has been adopted. Its simplicity and economy in first cost must commend themselves. In matters of detail not affecting the general plan, however, some changes easily effected may seem desirable.

Mr. Waring, although visiting the ground, used, in putting his plan upon paper, data from surveys made under the direc-

REPORT FROM THE MILLBURY TOWN COMMITTEE.

tion of your Board. It is possible that the proximity of the mouth of his proposed conduit to the village of Quinsigamond was not called to his attention. To continue the conduit further down, perhaps to the "Market land," would seem desirable in some respects. Should it be desired by your Board, Mr. Waring would be pleased to appear before you, and explain his plan in person. He has arranged, he tells us, to go South soon; and consequently such a meeting must be arranged for an early day, if at all.

In presenting the project of Mr. Waring, we wish to be understood as having no desire to oppose other plans, or to insist upon this, if others seem more promising, either in results as to purification, in pecuniary returns from the production of valuable crops by irrigation, or otherwise. To the city of Worcester a probable return from the investment is a matter of importance, and should have weight, even against a considerable increase in the first outlay. What is desired by the inhabitants of this and other towns along the Blackstone River, is relief from an evil, great at the present time, and threatening to become intolerable in the near future, as the city of Worcester increases in population. As to the means of preventing this evil we have no pride of opinion. Satisfactory results are all we ask for. Called upon by your Board to furnish expert testimony, we have employed one eminent as a sanitary engineer, and submit his recommendations, confident that they will merit the consideration of the members of your Board.

At this time, permit us to refer to a matter which we think ought not to be lost sight of in this connection. Whatever plan may eventually be adopted, there will necessarily result a greater or less loss of water; which, in the dry season of the year, when evaporation takes place rapidly, may amount to so much as to be a serious matter to the mills using the stream for water-power. Even now the loss to manufacturers is noticeable. But it is claimed that whatever water is taken for the Worcester water-supply is returned to the river through the sewers. This can, of course, be true only to a certain extent. With the sewer-water used for irrigation, and restrained for purposes of purification, the loss will be

REPORT FROM THE MILLBURY TOWN COMMITTEE.

much greater. We would urge the necessity of providing some means to make good this loss. And we respectfully ask that, should your Board report to the Legislature a plan to prevent the pollution of the river, they will also report that by means of additional storage basins, to be used for this purpose, the city should make good the consequent loss of water. For loss of water heretofore diverted from the Blackstone River, no recompense has been made by the city to mill-owners below the mouth of the sewer.

Respectfully submitted.

GEORGE A. FLAGG,
C. D. MORSE,
OSGOOD H. WATERS,
Committee of the Town of Millbury.

A PROJECT FOR THE PURIFICATION OF SEWAGE.

III.—A PROJECT FOR THE PURIFICATION OF
THE SEWAGE OF WORCESTER.

PREPARED FOR THE TOWN OF MILLBURY BY
GEORGE E. WARING, JUN.

General Statement.

As I understand the problem now presented to the town of Millbury, it is to suggest some practicable plan by which the city of Worcester may withhold from the Blackstone River the waste organic matters produced by its population and its industries, and now polluting that stream. This pollution is a nuisance to the occupants of the banks of the river, and the people of Millbury are especial sufferers therefrom.

The right of riparian owners to demand that a water-course be maintained in its original state of purity will hardly be questioned; nor does the duty properly devolve upon them of pointing out the way in which matters defiling it may be diverted. This question has, in the present case, however, an especial interest for Millbury, because its best chance of speedy relief lies in the suggestion of a system of purification, which by its completeness, economy, and simplicity, will commend itself to the prudence and good sense of the offending community as promising, at an inconsiderable cost, the final settlement of a question of serious moment in its future relations with its neighbors.

In attempting to formulate such a system, I have examined carefully many of the existing purification works of England and of the continent of Europe, and have studied the recent literature of the subject. These investigations have seemed to demonstrate, that, for a city circumstanced as Worcester is, none of the so-called "chemical" processes are worth considering; that no form of profitable agricultural use, however great its promise, should now be a controlling aim; and that the main object—the purification of the foul

PURIFICATION OF THE SEWAGE OF WORCESTER.

effluent of the sewers of Worcester — may be attained with certainty and with ease under the peculiarly favorable conditions existing.

In assigning a second place to the very important question of profitable utilization, I hasten to assert my full confidence in its complete and satisfactory solution, even where the conditions are much less favorable than here. My idea is only that it still is a question; that its solution is not yet so general and complete that an American city can be asked to accept it as final; and that the efficiency and economy of the method of purification I am about to recommend is so clearly indicated as to make the demand for its adoption in the present case, or for the adoption of its equivalent, entirely reasonable.

Although, in my opinion, the agricultural aim should not be a controlling one, it should surely be kept constantly in view, and the work should be so planned that agricultural utilization may always be easy. The proposition as it now stands relates to the cheap and efficient withholding from the Blackstone River of the foul wastes of the city, and this is all that the riparian population can exact. The further proposition of turning these wastes to profitable use concerns us all, but especially the people of Worcester, and it should claim our next consideration.

Taking the case as it stands, we find that the costly and elaborate system of sewers of Worcester includes no means for the separation of storm-water and sewage, nor is it worth while to consider such a separation at present. The main sewer has been made to include the channel of Mill Brook, — a considerable stream, which is subject to a large increase of volume during storms. The separation of the waters of this stream during dry weather is easily possible, and such separation is necessary to any economical treatment of the foul effluent. During storms, the lateral sewers being also storm-water sewers, separation is not now practicable, and the storm effluent must continue to reach the river with its burden of filth. At such times, however, the high state of dilution of the sewage, and the increased volume of the river itself, may be trusted for a long time to come to keep the

PURIFICATION OF THE SEWAGE OF WORCESTER.

nuisance within bearable proportions. If all future sewers of Worcester are built on the principle of absolute separation, the relief may remain permanent.

Without reference to a possible future separation of storm-water and sewage in the sewers of the city itself, and accepting as sufficient the dilution of the whole effluent during storms, we must secure the most complete separation possible between the ordinary *brook* flow and the dry-weather discharge of the lateral sewers, both of which now unite to form the current of the main sewer. It has been suggested * that the main sewer be furnished with an iron pipe connected by lateral branches with the mouths of the lateral sewers, each branch being provided with an automatic gate to throw the whole flow into the main sewer itself during storms. On further consideration, it is thought that the same result might be secured by the construction of two longitudinal walls in the main sewer,—one near each side, so as to carry off the dry-weather discharge of the sewers independently, and to furnish a sufficient centre channel for the ordinary flow of the brook. The floors or invert of the three conduits should of course be carefully formed. During storms the flow would rise above the dividing walls, and the several currents would become more or less intermingled. The outlets of the side channels should be connected with the purification works by some means which, while admitting a considerable increase of flow during the early stages of a storm, when the lateral sewers are being cleansed of their deposits, would, with the increase of the flood, be closed to even less than their ordinary capacity,—sending nearly all of the storm-flow directly to the river. This system would have the advantage of economy and simplicity, and it would secure a complete separation in the absence of storms. This is all that we can now hope to accomplish.

The dry-weather flow of the city sewers being thus separated from the waters of Mill Brook, and so brought within reasonable limits, it should, at the present outlet, be taken up by a covered conduit and carried to a point suitably dis-

* A Report upon the Possibility of utilizing the Sewage of Worcester, by Phineas Ball, 1873.

PURIFICATION OF THE SEWAGE OF WORCESTER.

tant. At this point it should be received in a twin chamber, either compartment of which should be large enough to cause a deposition of earthy matters only, and not large enough to allow the subsidence of any considerable amount of organic matter. For the removal of the accumulated earth the flow could be diverted from one compartment to the other.

Each chamber should be provided with two screens, one with two-inch openings to keep back coarse rubbish, and one with one-half inch openings to arrest the remaining solids. These solids should be raked out daily and composted, or otherwise treated. Experience at the screening-chambers in Berlin indicates that the quantity of these matters will be trifling.

After screening, the sewage containing its dissolved and suspended impurities undiminished, must be subjected to such treatment as will rob it of all these, and deliver it to the Blackstone River in a purified condition.

Purification Works.

The data at hand—chiefly the survey made for the Board of Health—do not furnish a sufficient basis for a precise detailed scheme. They will serve, however, for the general determination of a process which can be adapted in all its parts to the exact conditions that further surveys may establish. The following, with this reservation, is submitted as a practicable scheme for the treatment of the sewage of Worcester:—

We will assume the closed conduit to be continued for a distance of about 2,500 feet from the present outlet, mainly on the west side of the river, with a fall of 1 in 1,000. From its mouth to the beginning of the field-work (a distance of 500 feet), the conduit should be a wooden trough having a fall of 1 in 250, and wide enough to carry the ordinary flow at such a fall with a depth of less than one inch. For a further short distance the same conduit should continue on a level grade, delivering its checked flow into the main trench of the purification works.

The sewage is now cleansed of its coarser objects and of

PURIFICATION OF THE SEWAGE OF WORCESTER.

its sand; its suspended matters have been comminuted by its rapid descent down the 500-foot incline, and it has become thoroughly aerated. It is, in short, in the best condition for the subsequent treatment proposed for it.

The land to be employed for this treatment includes all the area between the Providence and Worcester Railroad and the 412-foot contour line (about 130 acres) and two tracts of about 15 acres each lying north of this area, on the east side of the railroad; making in all about 160 acres more or less. The irregular area has been very roughly calculated; but precision is of no consequence: the amount of land is more than ample.

The method adopted combines a long, sluggish flow in ditches, between banks planted with vigorous, water-loving vegetation, and a long exposure to the air; together with a broad surface-flow over a series of extensive beds for the final purification of so much of the effluent as has not been evaporated during the long exposure over an extended surface, and by the leaves of the plants and trees grown.

In the accompanying sketch, Nos. 1 and 2 are two tracts of about 15 acres each, laid off in alternate ditches and banks, the ditches connecting alternately at each end of the field, so as to form a continuous channel from the entrance to the exit, the banks projecting between its loops from one side of the field and from the other by turns.

Except for a short distance at the beginning, where greater velocity is desirable, the ditches are 6 feet wide, and 2 feet deep from the water-line.

The banks are 10 feet wide, and 1.2 feet high from the water-line.

After making allowance for headlands, etc., each acre will give about $\frac{1}{2}$ mile of ditch, or about $7\frac{1}{2}$ miles for each 15-acre tract.

The sides of the banks — leaving a passage-way in the centre — may be planted either with osier-bushes or with willow-trees, or with both according to the promise of the market. Willows growing under such circumstances would produce a heavy burden of valuable pollard-lops, while the osier product would be well suited for the finer sorts of basket-

PURIFICATION OF THE SEWAGE OF WORCESTER.

work. Either plant would exercise a marked purifying effect on the stream from which it fed.

Letters A, B, and C indicate three tracts of about 42 acres each, separated from the higher land,—first by a ditch to cut off the surface and subsoil water of the hill, next by a bank of earth, and next by a continuation of the system of ditches in the receiving tracts, being in fact an outlet for their flow. This ditch is laid on contour line 412. The tract C is to be fed directly from the main ditch. Tracts A and B will require separate feeders with a simple adjustment of gates for delivering the flow to one or the other as desired. This system of ditches will add from $1\frac{1}{2}$ to 2 miles to the distance to which the water is to flow before reaching the surface of the larger fields; and this extension is to be bordered with willows in the same manner as the ditches in the receiving tracts. The three areas, A, B, and C, should be separated from each other by earth-banks; and an outlet draining ditch should run along the side of the railroad to a point of discharge at the southerly end of area C.

This land, lying between the contour line 412 and the railroad, is indicated as an intermediate space between the receiving ditches and the river. It is a swamp already, and a slight addition to its water will not materially alter its condition. Where it is not already covered with trees or bushes, it should be so covered. In order to secure a tolerably free distribution of the flow, each area should be divided into separate beds of greater or less width according to the distance from the feeding ditch to the draining ditch. This division may be effected by a simple rude grading along the lines indicated, barely sufficient to prevent the shallow stream from flowing from one part to the next. My belief is that the sewage will reach this land in a condition quite pure enough for immediate admission to the river. But this is a belief only, and I can point to no corresponding work in support of it. I have therefore deemed it prudent, as it is in all ways unobjectionable, to introduce this flow over the surface of a wooded swamp, which will unquestionably effect any additional purification that may be found necessary. It is only as an additional precaution, and because of the absence of actual

PURIFICATION OF THE SEWAGE OF WORCESTER.

experience on the subject, that I have divided this tract into three separate areas for an alternation of use daily or weekly, or as often as may be found necessary; the interval between two uses of any one area being sufficient to secure the oxidation or destruction by vegetation of any remaining impurity of the effluent.

I am informed that it is not safe to provide for a daily production of sewage by the city of Worcester of less than 3,000,000 gallons. We may fairly assume that one-third of this will be lost by leakage and evaporation on the way, leaving 2,000,000 gallons per day to reach the swamp. This will be equal to about $\frac{15}{100}$ of a foot in depth every third day, or a total depth of about 200 inches per annum. That this is not an excessive amount of clarified and mainly purified sewage, to be delivered under such circumstances, may at least be inferred from the fact that the filtration ground at Kendal (England) has received and purified, since 1874, a depth of over 3,000 inches per annum of the very foul sewage of that town.*

Briefly stated, the process of purification here recommended is as follows:—

I. Separate the dry-weather sewage of the city and the early storm-washings of the sewers from the water of Mill Brook.

II. Allow the earthy matters of the sewage to subside.

III. Screen out the coarser objects.

IV. Expose the screened sewage in a thin sheet to the air during its rapid flow for a distance of 500 feet at a sharp fall.

V. Carry it at low velocity for about 10 miles through ditches bordered by rank-growing trees or bushes, — alternating to a second set of ditches as often as necessary, say once a week, so as to give each set a dry week for the aëration of the subsided matters.

VI. Spread the resultant effluent over 126 acres of wooded swamp land, giving each area two days out of three for aëration.

* Rogers Field, in the discussion of C. H. Bazalgette's paper on the Sewage Question.

PURIFICATION OF THE SEWAGE OF WORCESTER.

Conclusion.

I believe that the method above described will be entirely efficient even for the treatment of more than 3,000,000 gallons of sewage per day. It will involve the minimum of cost for construction and maintenance, and will require the purchase of only about 165 acres of land of the lowest value.

It will, I think, fully and permanently meet the demands of the riparian population along the Blackstone River, and will satisfy, in the cheapest way the legal obligations of the city of Worcester.

Save for the product of the willows or other growth of the ditched and of the irrigated tracts, it makes no attempt at utilization. But this feature of the case can have only a secondary interest for the people of Millbury. How far it is right for that people to urge a more useful application of its sewage upon the city of Worcester is questionable.

At the same time it cannot be amiss to call attention to this means for securing a return for the inevitable outlay; and it is suggested that it would be a matter of small cost and of much promise for the city to secure a trial ground on the higher-lying garden or farming land near the screening chamber to which to force so much of the sewage as could with advantage be used on five or ten acres. It is more than possible — it is altogether probable — that such a demonstration of the value of sewage for agricultural use would lead to an extended demand for it during the growing season on the part of private cultivators, which would ultimately bring a good return, and would absorb a large part of the summer flow.

GEO. E. WARING, JUN.

NEWPORT, R.I., Dec. 5, 1881.

SPECIAL SANITARY APPENDIX.

IV.—ESTIMATE OF COST.

WORCESTER, MASS., Dec. 30, 1881.

C. D. MORSE, Esq., *Millbury, Mass.*

Dear Sir,—The following estimate is herewith submitted, of the cost of the sewage disposal works proposed by Col. George E. Waring, jun., for the diversion of the sewage of the city of Worcester from the Blackstone River: to wit,—

LAND.

30 acres purification ground, \$150 per acre . . .	\$4,500 00
88 acres swamp, at \$20 per acre . . .	1,760 00
42 acres meadow, part cranberry, \$100 per acre . . .	4,200 00
Total	<u>\$10,460 00</u>

WOODEN CONDUIT.

500 feet open wooden conduit, 20 feet wide, made of southern hard pine, floor 1½ thick and matched . . .	\$2,700 00
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The foregoing estimates are taken from your letter dated Dec. 15, 1881.

2 settling-basins, 300 feet long, 30 feet wide, built in earth, with 4 screens and 5 gates	\$2,900 00
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CONDUIT FROM OUTLET OF SEWER TO GROUNDS.

3,000 feet brick conduit, 36 inches in diameter, trenching and brick-work, at \$4.50 per foot	\$13,500 00
Extra for crossing river by an iron pipe	1,000 00
Land damage	1,500 00
Total	<u>\$16,000 00</u>

DIVIDING CONDUITS IN MILL BROOK.

From the outlet of the sewer at Quinsigamond to Cambridge Street, a distance of 4,200 feet, a 36-inch cast-iron pipe has been estimated, because the Piedmont sewer enters the main canal at the same level as the bed of the canal, and it is not practical to carry the sewage to the side of the canal.

641 tons 36-inch pipe, at \$45	\$28,845 00
Laying 4,200 feet pipe, at \$2	8,400 00
Extra for connections	2,000 00
5,000 cubic yards concrete in 10,000 feet of Mill Brook, north of Cambridge Street, at \$10 per cubic yard	50,000 00
Extra for irons and connections	3,000 00
Total	<u>\$92,245 00</u>

ESTIMATE OF COST.

REPARATION OF SWAMP AREAS.

13,000 feet main carrier.

6,000 feet feeder to area A.

3,000 feet feeder to area B.

22,000 feet main carrier and feeder.

13,500 feet intercepting ditch to carry off surface-water.

35,500 feet ditches as above, 36,000 cubic yards' excavation, at 30 cts.	\$10,800 00
6,000 feet drain ditch next railroad, at \$1.25	7,500 00
4,000 feet separating dykes between swamp areas . .	2,000 00
48 small gates and fixtures	500 00
3 large gates and fixtures	150 00
Total	\$20,950 00

PURIFICATION AREAS.

Grading of 30 acres of ground preparatory for the trenching, and making 15 miles trenches, estimated to take

120,000 cubic yards of earth-work, at 35 cts. . . \$42,000 00

Willows 500 00

SUMMARY.

Land	\$10,460 00
Wooden conduit	2,700 00
Settling-basins	2,900 00
Brick conduit	16,000 00
Dividing conduit in Mill Brook	92,245 00
Reparation of swamp area	20,950 00
Purification area	42,000 00
Willows	500 00
Add for engineering and contingencies	18,745 00
Total estimated cost	\$206,500 00

Respectfully submitted.

PHINEHAS BALL,
SIMPSON C. HEALD,
Civil Engineers.

AMOS PIKE,
Contractor.

REPORT UPON METROPOLITAN DRAINAGE.

C.—REPORT UPON METROPOLITAN DRAINAGE.

[Reference having been made on p. lxxv to a commission authorized to report on the drainage of the Mystic River Valley, we here annex the substance of their report, as presented to the Legislature on the 9th of January, signed by E. S. Chesborough, H. P. Walcott, Charles F. Folsom, A. W. Boardman, and Azel Ames, jun. These Commissioners say:]

We have spent much time in considering how extensive a district should be included in your recommendations concerning a plan of drainage, and have concluded that, to meet actual wants and public expectation, such a district should include not only the Mystic River Valley, but the Charles River Valley, a small part of the Neponset River Valley, and embrace the cities of Boston, Cambridge, Newton, Somerville, Chelsea, and Malden, and the towns of Brookline, Waltham, Watertown, Belmont, Arlington, Winchester, Medford, Woburn, Stoneham, Melrose, Everett, Revere, Winthrop, and such parts of Dedham, Needham, Natick, and other towns, the proper drainage of which is essential to the purity of the water supplied to the cities above mentioned. Our reasons for including those cities and towns, and leaving out others, especially in the upper part of the Charles River Valley, will appear more fully under the "plans considered."

By drainage we understand the resolve to mean the removal by means of sewers or drains of all substances detrimental to health or comfort, and capable of being so removed to where they will not be injurious.

Systems of Sewage Disposal.

We do not deem it necessary or advisable at this time to enter into a detailed description of the different methods of disposing of sewage. The reports of the State Board of Health contain very full accounts of the experience of European cities in this respect. Those cities have been heretofore, and will probably continue for some time to be, our guides in matters of this kind. We consider it sufficient to

REPORT ON MYSTIC VALLEY DRAINAGE.

state that in economy and efficiency no method can compare with that which discharges all objectionable substances into the sea or other large bodies of water, where they cease to be objectionable. For the towns and cities included within the list of those for which a scheme of main drainage is recommended in this report, no other safe method of disposing of the sewage will be so cheap in the end as joining the main sewer. Where it is not practicable to do this, we are thoroughly satisfied that the next best method of sewage removal is to irrigate land with it, as will be more fully stated under the head of "Irrigation Schemes." We shall therefore confine our recommendations to those two methods, being fully satisfied that one or the other can be applied to every case under consideration. The extent to which sewerage work should be carried out in each town or neighborhood must be left for future determination, there being at present many cases where no such works are advisable.

Irrigation Schemes.

Investigations made at Worcester this year confirm the experience of England, France, and Germany that sewage irrigation for towns will involve some yearly loss as compared with throwing the sewage away. It may be adopted, however, for groups of houses or villages, or for towns remote from a permissible discharge into a stream or main drain. Three hundred acres, at least, of well-drained land will be needed for each million gallons of sewage for ordinary irrigation. Where suitable land can be got for modified intermittent downward filtration, twenty-five acres will be sufficient for each million gallons of sewage. This may prove to be the best method of properly and immediately disposing of the sewage of Natick, and portions of the Mystic River Valley.

Small privy-vaults, lined with Portland cement, or containing tight receptacles, daily disinfected with sufficient earth and frequently emptied, with the slop-water discharged on a garden or used in irrigation on the surface, or by tiles under ground, and other similar measures, will often be preferable to large water-supplies and cesspools, on the grounds both of health and of expense. In many places some such means

PRELIMINARY INFORMATION.

must be adopted where absolutely tight cesspools are not practicable, where land is not available for irrigation on a small or large scale, where the soil is not adapted to sub-surface irrigation, and where no permissible outlet for a system of sewers can be secured.

Surveys and Preliminary Information.

It would be impossible to decide satisfactorily upon the details of plans for the drainage of so extensive a district, so varied in its physical and municipal characteristics, as the one to be considered, without a mass of information much more costly to obtain than we have felt justified in procuring, knowing that only a very limited appropriation has thus far been made for such a purpose. We therefore take the ground that the Governor and Council expect of us, as to engineering plans, only general recommendations, leaving the details to be worked out at whatever necessary expense, after a general outline shall have been agreed upon. It is very unsafe, however, to adopt a general plan without knowing first that it can be suited to all the circumstances of the case. We have, therefore, studied what has already been done by the cities and towns included in the district proposed towards effecting proper drainage,—whether in works actually constructed or under construction, or in plans adopted or proposed. Fortunately we find a great deal of most valuable information of this kind (obtained by these municipalities at a very heavy expense) in the aggregate.

The cities and towns which have already adopted or considered plans based upon actual surveys are Boston, Cambridge, Newton, Lynn, Somerville, Chelsea, Brookline, Medford, and Watertown.

The preliminary investigations of Boston extended over a very large part of the district now under consideration, and embraced both sides of the Charles River from Newton and Waltham to the sea. (See report of Commission of 1875 to Mayor Cobb.)

We have had, at as small an expense as practicable, the information above mentioned supplemented just sufficiently to be able to show that the general recommendations made

REPORT ON METROPOLITAN DRAINAGE.

are based upon positive knowledge,—a knowledge, however, not sufficient to enable us to speak positively with regard to estimates of cost.

Intercepting Sewer.

The city of Boston having already adopted and largely carried out a system of intercepting sewers which is adapted to all parts of that city south of the Charles River and below Newton, we shall begin at once to consider the necessities of the north side of the Charles River, more especially as this embraces the Mystic River Valley, the first district mentioned in the resolve. For the north side of the Charles River, the Commission of 1875 recommended an

Outfall

at Point Shirley, believing that to be decidedly the best situation, all things considered, they could make. Since then new importance has been given to the Revere and Winthrop Beaches, so that the possibility of sewage being carried northward from the outfall, and the location there of terminal works, have given alarm to the owners of that property now considered so much more valuable than formerly. This has led to the suggestion that it may be found best, after further investigation, to make the outfall of the sewage at the lower end of Deer Island. The great advantage of this point is, that it is farther removed from the Revere and Winthrop beaches, as well as from Boston, than any other available locality. We should not fear the effect of discharging from Point Shirley, and we look upon the nuisance already created on the shores and flats of Lynn Bay, by the sewage of Lynn, as far worse already, and likely to be much more so in the future, than any that would be caused by discharging from Point Shirley; because this would take place during the first three hours of ebb-tide only, when there is a strong current into the open sea; whereas the sewage of Lynn is discharged at all times of tide into a bay which has no special current into the sea. Should there be no strong objections to including Lynn in the proposed metropolitan district, it would be quite practicable to convey its sewage through a branch to the proposed intercepting sewer.

THE MAIN SEWER.

Line of Sewer.

From the outer end of Deer Island we believe it would be found best to locate the intercepting sewer along the harbor side of the island to Shirley Gut, which could be crossed by an inverted syphon or tunnel, as future investigations may show to be best. Between Point Shirley and Cambridge we are unable at present to point out a better line than the one recommended by the Commission of 1875. That line passed in the rear of Winthrop Beach, and lengthwise across Breed's Island. It then passed through Chelsea, near and south of the Eastern Railroad, and crossed the Mystic River near Charlestown Neck; thence it passed through Somerville and East Cambridge, and followed a direction beyond near the Charles River, terminating a short distance from the Brookline Bridge. In order to accommodate the upper part of the Charles River Valley, we think it may be found best to locate the main intercepting sewer west of the Mystic River, along Washington Street, through Somerville into Cambridge, and crossing over from that street a little west of the College grounds to Mount Auburn Street, thence up the north side of the Charles River, on such grounds as may hereafter be determined to be most advisable, to some point in Waltham not far from Weston. For a better understanding of this, and such other lines as shall be mentioned in this report, we refer you to the accompanying map.

The main intercepting sewer will necessarily have a number of important branches, especially that for the Mystic River Valley, which in turn must have several smaller branches from itself. Important branches will also be needed for East Boston, Chelsea, Charlestown, Somerville, Cambridge, Newton, and other places; but we are not prepared to decide upon the exact positions or other details of these branches. It may be advisable ultimately to construct a branch to Natick. Should it be decided to include Lynn within the metropolitan district, it may be advisable to place the line of the main intercepting sewer considerably farther north than has been contemplated heretofore. But that depends upon further examinations.

REPORT ON METROPOLITAN DRAINAGE.

Apportionment.

We have given much thought to the methods of apportioning the cost of the proposed intercepting sewers. We find that a great diversity of opinion and practice exists in regard to this subject in the United States. Even among ourselves it has very different aspects. There must be an organization to adjust the matter as well as to take charge of the proposed metropolitan district. How should that organization be constituted? As to number, qualification, and mode of appointment?

We have examined carefully a bill presented to the Legislature in 1881, and designed to meet this question. With its mode of organizing a board of inspectors, or, as we should prefer to call them, commissioners, we agree. We believe they should be men of deservedly the highest reputation for honesty, intelligence, and executive ability. We do not consider it necessary that they should possess a large amount of technical knowledge, if otherwise abundantly qualified, though this would be by no means objectionable; but we believe they should be able, as well as fully empowered, to select the best qualified assistants in the discharge of their duties. We would in no wise restrict their powers as defined in that bill, but extend them to every thing necessary to carry out the purposes of the metropolitan district organization, their acts being subject to revision only by the Governor and Council. These powers are described in the third and fourth sections of that bill, which, modified as we propose, in two or three points, will be found at the close of this report. The method of apportioning the cost of the works that may be constructed has been considered by us from different points of view, and in the light thrown upon this subject by the experience of other cities in regard to assessments for drainage. This experience shows a great diversity in different cities, and vacillation sometimes in the same city relative to such matters.

Five methods have been suggested, — one based upon population, a second upon area, a third upon population and area combined, a fourth upon valuation of real estate alone, and a fifth upon the valuation of real estate and personal property combined. To show the bearing of these different

POPULATION AND WEALTH OF THE PROPOSED DISTRICT.

methods upon the question before us, we have prepared the following tabular statements:—

Part I.

TOWNS.	Population 1880.	Acres.	Population × Acres.	Town Valuation. Real Estate. 1881.	State Valuation. Real and Personal combined, 1876.
Natick . .	8,480	8,205	69,578,400	3,696,016	3,708,110
Newton . .	16,995	9,965	169,355,175	18,238,510	30,867,560
Cambridge . .	52,740	3,300	174,042,000	38,691,190	66,081,126
Somerville . .	24,985	1,941	48,495,885	20,356,100	29,334,350
Chelsea . .	21,785	961	20,935,385	13,795,850	18,270,619
Malden . .	12,007	2,700	32,418,900	8,334,375	9,731,455
Brookline . .	8,053	3,765	30,319,545	13,826,400	30,769,194
Waltham . .	11,711	7,695	90,116,145	7,119,000	10,257,698
Watertown . .	5,426	2,053	11,139,578	4,905,320	8,170,369
Belmont . .	1,615	2,739	4,423,485	2,786,737	4,305,961
Arlington . .	4,100	2,874	11,783,400	3,424,138	6,377,689
Winchester . .	3,802	3,473	13,204,346	2,803,542	4,781,527
Medford . .	7,573	5,073	38,417,829	5,673,785	9,736,661
Woburn . .	10,938	7,685	84,058,530	5,806,787	8,767,630
Stoneham . .	4,891	3,580	17,509,780	2,595,815	3,129,181
Wakefield . .	5,548	3,734	20,716,232	2,877,281	4,706,056
Melrose . .	4,560	2,700	12,312,000	3,376,200	4,730,067
Everett . .	4,159	1,835	7,631,765	3,783,050	4,380,269
Revere . .	2,263	3,419	7,737,197	2,230,675	1,971,955
Winthrop . .	1,043	989	1,031,527	1,485,041	1,074,126
All of Boston,	362,535	19,600	7,105,686,000	445,388,600	795,638,935
Totals . .	575,209	98,286	7,970,913,104	611,195,412	1,056,533,538
East Boston . .	29,926	658	19,691,308	15,846,600	—
Charlestown . .	33,731	436	14,706,716	21,158,100	—

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Part II. — Apportionment according to

TOWNS.	Population.	Acres.	Population + Acres.	Real Estate.	Real and Personal Property.
Natick . .	191,652	1,085,251	114,000	78,613	45,626
Newton . .	384,051	1,318,046	276,200	387,832	379,810
Cambridge .	1,191,950	436,483	283,850	822,960	813,090
Somerville .	564,673	256,732	79,095	432,970	360,940
Chelsea . .	492,351	127,110	34,144	293,440	224,100
Malden . .	271,364	357,121	52,873	177,270	119,740
Brookline .	182,020	497,985	49,450	294,090	378,590
Waltham . .	264,674	1,017,790	146,900	151,420	126,210
Watertown .	122,652	271,554	18,585	104,340	100,530
Belmont . .	36,500	362,280	7,214	59,270	52,930
Arlington .	92,662	380,135	19,218	72,830	78,474
Winchester .	85,927	459,363	21,536	59,631	58,833
Medford . .	171,153	670,991	62,658	120,690	119,800
Woburn . .	274,204	1,016,470	137,100	123,507	107,880
Stoneham . .	110,540	473,518	28,558	55,212	38,503
Wakefield .	125,387	593,885	33,787	61,199	58,570
Melrose . .	103,058	357,121	20,080	71,810	55,038
Everett . .	93,995	242,710	12,448	80,465	53,897
Revere . .	51,145	452,233	12,618	47,445	24,270
Winthrop . .	23,572	130,812	11,686	31,600	13,216
All of Boston .	8,193,470	2,592,430	11,588,000	9,473,400	9,789,900
Totals . .	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000
East Boston .	676,342	87,032	32,115	337,060	—
Charlestown .	762,337	57,668	23,991	450,020	—

METHOD OF ASSESSING THE COST.

We would call special attention to the anomalies in the calumns of real estate alone, and real and personal estate combined, which are accounted for by the one being city and town assessments in 1881, and the other by State valuation in 1876. It should also be mentioned that the relative population and valuations of the towns and cities are continually changing.

A glance at this statement will suffice to show how unequally any one of the proposed methods would bear upon the different municipalities to be taxed. That based upon population need but to be stated to be condemned, and yet it is evident that health and comfort have more intimate relations, as a rule, with men's persons than with their estates. The method based upon area drained would at first seem to be the fairest of all, and to a large extent has been adopted by cities in their assessments for the cost of sewers; but we are satisfied it would be utterly condemned in a metropolitan district, unless greatly modified; for by it cases would arise in which land might be assessed for not only more than its present value, but more than any reasonable estimate for its future worth. The method based upon population and area combined is equally unsatisfactory. The method based upon valuation of real estate seems to offer, on account of its simplicity and ease of practical application, the readiest way of overcoming all difficulties; but under this method, as in the others, cases of gross inequality, if not injustice, would arise. It will be said that school, road, and most other taxes are liable to the same objections, but are nevertheless submitted to because of the impossibility of applying a better rule. While such is the case with regard to schools, roads, and other objects that are enjoyed by the whole community, there are objects, such as water-supply, sewerage, and the widening of streets, that are not taxed wholly, and often not mainly, upon such a principle. The method based upon the valuation of real and personal estate combined presents the same advantages and is liable to the same objections as the method by valuation of real estate alone.

Besides the bearings of the subject upon taxpayers individually and upon municipalities generally, special questions

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arise in certain cases. Take, for instance, the city of Boston and the town of Natick. It is evident that the latter cannot continue to pollute the water-supply of the former, and yet the adjustment of the question between them depends so much upon principles of law and engineering problems not yet worked out, that we feel unable to give definite rules for assessments in this case or the still more important one between the city of Boston and the towns whose natural drainage is into Mystic Lake. Were we confident what would be a just and practicable method to carry out to-day, we feel certain that no human foresight is sufficient to estimate correctly all the new circumstances that will affect the question during the next thirty years or more, according to the length or time the bonds to be issued may run. In view of the considerations already mentioned, we are unable to see any way so likely to be just, practicable, and reasonably satisfactory, as that of giving authority to the proposed Metropolitan District Commissioners, with whatever limitations the Legislature may think best to make, to levy the assessments from year to year in such manner as shall seem to them most equitable after obtaining all the light they can, and giving all reasonable opportunities to objectors to be heard. By reserving to the Governor and Council the right to revise the proceedings of the Commissioners, and by causing the assessments to extend through thirty years or more, we believe the rights of all parties would be secured as far as human wisdom can do it.

We would recommend the least interference possible with local arrangements for drainage in the different municipalities. It is evident, however, that the Metropolitan Commissioners could not effect the object of their existence unless they should be able to control all connections with the main and branch intercepting sewers, and thus determine what should and what should not be received into them. Otherwise a single town, paying but a very small portion of the metropolitan assessments, might, for the purpose of increasing its population and taxable property, permit manufacturing establishments producing sewage in enormous quantities and most objectionable in character. If the least

PROSPECTIVE ARRANGEMENTS NECESSARY.

important municipality could do this, certainly the others would have the same right, and thus the intercepting sewers become liable to gorging, and consequently useless, or be made a nuisance by receiving putrid and offensive substances at their origin; whereas the great value of the proposed system consists in its ability to convey all matters, properly received into it, to the outfall, before putrefaction takes place.

Population and Area to be Provided for.

At present the entire population, according to the census of 1880, residing in the proposed metropolitan district, north of the Charles River, is 262,184; but the area included is capable of accommodating a very great addition to this. What this increase will be it is impossible to tell; but, as the intercepting sewer could not be enlarged after completion, it should be made of sufficient capacity to accommodate the largest population it is probable will need it for years to come. Rather than expend too much at present on a single main sewer, it would be better to build a second one if the future should demand it. We would recommend that one million inhabitants be provided for in determining the size of the main outfall sewer, and that the daily average consumption of water by each person be estimated at seventy-five gallons, and that the greatest discharge into the sewers be considered double this rate. We would also recommend that storm-water, to the extent of one-quarter of an inch in twenty-four hours over the area likely to be sewered, be provided for in the capacity of the sewers. The total area in the district north of the Charles River is upwards of eighty square miles; but as a considerable portion of it will not for many years, if ever, need to be taken into the intercepting sewer, an area of less than fifty square miles should be provided for.

We have already described the general line of the proposed north-side main intercepting sewer. With regard to the intercepting sewer and branches for draining the Mystic River Valley, we believe the plan presented by the city engineer of Boston, in 1875, was very carefully studied by competent men, and we are not able to suggest improvements at

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this time. We refer to the accompanying map for the line of this sewer and its branches as far as planned. It will be seen that this sewer, as planned, terminates where it should connect with the main north-side intercepting sewer, near the south end of Malden Bridge.

Estimate of Cost.

As already mentioned, we have not been able to obtain information enough to base a close estimate of cost upon. We have, however, assumed a total cost of \$13,000,000 in the tabular statement under the head of "Apportionment." This sum has been adopted after ascertaining the estimated total cost of the Boston improved sewerage (about \$4,250,000), and comparing the estimated cost of the proposed north-side intercepting sewer and branches of 1875, and the estimated cost of the Mystic River Valley sewer and branches as far as ascertained by the city engineer of Boston in 1875 (about \$1,250,000), not including branches from Malden, Melrose, and Everett. The greater territory it is proposed now to drain by the north-side intercepting sewer leads us to more than double the estimate of 1874 (or call it \$6,000,000), and we prefer to call the estimate for the Mystic River Valley sewer, including above-mentioned branches, \$2,000,000. These sums of \$4,250,000, \$6,000,000, and \$2,000,000, amount to \$12,250,000. What may be expended on Deer Island or in Natick we are unable to tell, but have adopted the round sum of \$13,000,000 for the tabular statement. This includes nothing for high-level intercepting sewers which may be needed, especially in the southern part of Boston; but we have no plans or estimates upon which to base an opinion in regard to their cost.

Conclusion.

In conclusion it will be seen that we recommend a metropolitan district system, which we believe should include the entire territory naturally draining into Boston inner harbor; a system of intercepting sewers and branches to be supplemented, where found advisable, by irrigation or intermittent downward filtration works; and a Board of Commissioners

CONCLUSION.

to plan, carry out, and manage the works, and to make the apportionment of taxes necessary to pay for the same, subject to the supervision of the Governor and Council. We believe that the system recommended would preserve, so far as is practicable by general sewerage, the purity of the water-supply of the cities included in this district.

